

TRANSMITTAL

Date: March 12, 2019

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Subject/Title:

Well Installation Report Addendum
Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale, CA

Northrop Grumman Corporation is submitting the above-referenced

- | | |
|----|-------------------------------|
| | For your review and comment |
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If you have any questions or comments regarding the enclosed report, please feel free to call Shantal Der Boghosian at 310-332-7612.



WELL INSTALLATION REPORT ADDENDUM

**FORMER TRW MICROWAVE SITE
825 STEWART DRIVE
SUNNYVALE, CALIFORNIA**

March 2019

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825 STEWART DRIVE
SUNNYVALE, CALIFORNIA**

March 12, 2019

Prepared by:

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Prepared on behalf of Northrop Grumman Systems Corporation



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TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Background.....	1
2.0	FIELD ACTIVITIES.....	1
2.1	Well Installation	3
2.2	Groundwater Sampling.....	3
3.0	RESULTS.....	3
4.0	CONCLUSIONS AND RECOMMENDATIONS.....	4
5.0	REFERENCES.....	4

TABLES

- 1 Well Completion Information
- 2 Groundwater Volatile Organic Compound Results – 2018

FIGURES

- 1 Site Layout and Well Locations
- 2 Cross Section Y-Y'
- 3 Cross Section Z-Z'

APPENDICES

- Appendix A Borehole and Well Construction Logs
- Appendix B Well Development Logs
- Appendix C Low-Flow/Minimal Drawdown Sampling Logs
- Appendix D Analytical Laboratory Reports

1.0 INTRODUCTION

This Well Installation Report Addendum has been prepared on behalf of Northrop Grumman Systems Corporation (Northrop Grumman) by AECOM, Inc. (AECOM) and Burns & McDonnell. The purpose of the field activities described in this report was to perform additional investigation activities in the northern portion of the former TRW Microwave Site (Site) in Sunnyvale, California to ascertain the source of the elevated trichloroethene (TCE) observed in well T-9B and install of at least one additional monitoring well in that area. This scope of work was requested by the United States Environmental Protection Agency (USEPA) in their comments dated August 24, 2018 on the Well Installation Report (AECOM, 2018a). Work was performed in accordance with the approved Well Installation Work Plan Letter Addendum (AECOM, 2018b). The Site layout and locations of the monitoring wells are shown on Figure 1.

1.1 Background

In August 2017 in accordance with the approved work plan, field work was performed at the Site to evaluate potential contaminant migration pathways in Zone B1 along the southern, western, and northern property boundaries of the Site. Wells T-20B and T-21B (Figure 1) were installed in the shallowest identified hydrostratigraphic unit (HSU), HSU3, at the southern and western property boundaries, respectively. At the northern property boundary near existing well T-9B, a continuous core direct push borehole (referred to as BH9) (Figure 2) was advanced to evaluate the geology and target the three HSUs in Zone B1. Hydropunch samples were collected from each of the three identified HSUs in BH9 and were used to provide another line of evidence that the HSUs identified using environmental sequence stratigraphy represented three separate HSUs. Based on the results of the Hydropunch data, three monitoring wells (T-22B, T-23B, and T-24B) (Figure 2) were installed in the immediate vicinity of BH9, each well screening one of the identified HSUs. However, when these new monitoring wells were sampled in October 2017 and 2018, the analytical results were not consistent with the August 2017 Hydropunch samples (e.g., concentrations of TCE and cis-1,2-dichloroethene [cDCE] detected in the Hydropunch sample collected at 33 feet below ground surface [bgs] in BH9 were substantially higher than those detected in monitoring well T-24B, screened 33 feet to 36 feet bgs, and assumed to be screened across HSU2). In addition, the yield from well T-23B, installed in what was believed to be HSU1, was found to be poor upon well development and sampling, suggesting that this well may not screen a significant HSU or is screened in a low yield portion (fine-grained clayey sand) of the HSU1 channel sand. Additional information, including well installation details and analytical results, are included in the Well Installation Report (AECOM, 2018a). Based on the results of the investigation and at the request of USEPA, additional field work was needed to enhance understanding of migration pathways in the vicinity of well T-9B.

2.0 FIELD ACTIVITIES

Field activities were performed in December 2018 in accordance with the Well Installation Work Plan Addendum (AECOM, 2018b) and under the supervision of a registered California Professional Geologist. The scope of work included (1) three continuous core direct push boreholes in the vicinity of well T-9B, (2) collection of Hydropunch samples, and, based on the results of the geology observed in the continuous core boreholes and the results of the Hydropunch sampling, installation of a dual-nested monitoring well. Borehole logs and well installation logs are included in Appendix A. Well development logs are included in Appendix B. Low-flow sampling logs are included in Appendix C.

Pre-field activities included:

- Well construction permits were obtained from the Santa Clara Valley Water District;
- Proposed locations were marked in white paint and Underground Service Alert of Northern California (USA) was contacted at least 72 hours prior to conducting subsurface work; and
- A private utility locator checked for subsurface utilities.

Per the work plan, an initial continuous core borehole (BH-10) was drilled to the west of T-9B and the well cluster installed in 2017 (wells T-22B, T-23B, and T-24B) (Figure 1). Hydropunch samples were collected from each of the two observed HSUs in this borehole. A second borehole (BH-11, noted as wells T-25Bs and T-25Bd on Figure 1) was installed east of the well cluster and Hydropunch samples were collected from the three observed HSUs. A third borehole (BH-12) was installed between well T-9B and the well cluster (Figure 1) and three Hydropunch samples were collected from the three observed HSUs. Cross sections interpreting the new geologic information provided by these boreholes in conjunction with information from the existing monitoring wells are shown on Figure 2 and 3. The concentrations of the contaminants of concern detected in each Hydropunch sample are shown in Table 2.

Borehole BH-10

At location BH-10, only two potential HSUs were observed. As shown on Figure 3, based on a combination of chemical and geologic data from this field event as well as previous membrane interface probe (MIP) investigations at the Site (AECOM, 2016), the channel encountered at the depth typically consistent with HSU 1 (10 feet to 15 feet above mean sea level) is potentially disconnected from the channel slightly to the west that intercepts well T-9B. Concentrations of cDCE in the Hydropunch sample (520 µg/L) collected in this interval were similar to those observed in upgradient existing monitoring well T-4B (700 µg/L) (Table 2). Therefore, this location was not selected for installation of a monitoring well, because this channel is monitored by existing well T-4B.

Borehole BH-11

At location BH-11, all three Hydropunch samples showed distinctly different concentrations of the contaminants of concern. The concentrations detected in the shallowest Hydropunch sample interval (screened from 22 feet bgs to 23 feet bgs) were similar to concentrations detected in existing monitoring well T-22B (screened from 24 ft bgs to 25 ft bgs) (Table 2); therefore, a permanent monitoring well was not installed in this interval. Concentrations of cDCE and TCE detected in the middle Hydropunch sample interval (screened from 25 feet bgs to 27 ft bgs and coincident with HSU1) and deep interval (screened from 33 ft bgs to 36 ft bgs and coincident with HSU2) had differing ratios of TCE and cDCE, both in comparison to each other, and in comparison to wells T-23B and T-24B. The concentrations of TCE and cDCE observed in these intervals are also more consistent with concentrations observed in well T-9B, which is screened across both HSU1 and HSU2, than the existing well cluster. In addition, Freon 113, a contaminant associated with offsite contamination, was detected in the deeper

sampling interval, which is consistent with the conceptual site model that HSU2 is impacted by offsite contamination. Therefore, both the middle and deeper Hydropunch sample intervals were selected for installation of permanent well screens to enhance understanding of concentrations in HSU1 and HSU2 (refer to Section 2.1).

Borehole BH-12

Based on both the lithology and the chemical data, the HSUs encountered and sampled at BH-12 coincided with HSUs already monitored by the existing monitoring wells at the Site (refer to well T-24B shown on Figure 2; therefore, a permanent monitoring well was not installed at this location.

2.1 Well T-25 Installation

Given the highly heterogeneous nature of the depositional environment and desire to screen the exact same sampling intervals from the Hydropunch effort, a dual-nested monitoring well was installed by overdrilling the location of BH-11 to align the screen intervals of the monitoring wells with the HSUs that were sampled using Hydropunch (Figures 1 and 3). The dual-nested well was installed in a 10-inch borehole using a hollow-stem auger drill rig. Each interval of the dual nested well was constructed with 2-inch-diameter, Schedule 40, polyvinyl chloride (PVC) blank casing and well screen with 0.020-inch slot. The wells were constructed and developed based on California Department of Water Resources (CDWR, 1991) Well Standards Bulletin 74-81 and 74-90, Site-specific conditions, and local regulatory requirements. The dual-nested well was completed at the surface with a flush-mount traffic-rated well box. Well construction details are included in Table 1. Borehole and well construction logs are included in Appendix A. Well development logs are included in Appendix B.

2.2 Groundwater Sampling

Groundwater samples were collected from both screen intervals of the newly installed dual-nested monitoring well using standard low flow/minimal drawdown methodology and sent to an offsite laboratory for analysis of VOCs. Analytical results are presented in Table 2, low-flow groundwater sampling logs are presented in Appendix C, and laboratory reports are presented in Appendix D.

3.0 RESULTS

Contaminant concentrations in the new wells are distinct from the existing monitoring well cluster (wells T-22B, T-23B, and T-24B) and are generally consistent with those in wells T-9B. Concentrations of TCE detected in new wells T-25Bs and T-25Bd and existing well T-9B were 350 µg/L, 450 µg/L and 220 µg/L, respectively. Concentrations of cDCE in wells T-25Bs, T-25Bd, and T-9B were 270 µg/L, 77 µg/L, and 170 µg/L, respectively (Table 2). As discussed in Section 2.0, Freon 113 was detected in well T-25B at a concentration of 5.1 µg/L. Although not detected during this sampling event, Freon 113 has been detected historically in well T-9B. Based on the similarity in concentrations to well T-9B and the presence of Freon 113, the new wells are screened in the distinct HSUs (HSU1 and HSU2) and serve to monitor the groundwater quality within the HSUs.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The field program described in this report successfully filled the data gaps previously identified at the Site in the vicinity of well T-9B through installation of nested well T-25B, which discretely screens HSU1 (T-25Bs) and HSU-2 (T-25Bd)

Based on these results, it is recommended that:

- Well T-9B no longer be used as a monitoring well and be destroyed because the well is screened across multiple HSUs, confounding data interpretation; and
- New wells T-25Bs and T-25Bd be added to the annual monitoring event to allow for long-term evaluation of trend data.

5.0 REFERENCES

AECOM. 2018a. Well Installation Report, Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale California. May 3.

AECOM. 2018b. Well Installation Report, Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale California. May 3.

AECOM, 2016. Background Water Quality Evaluation Report, Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale, California. November 2016.

TABLES

Table 1
Well Completion and Sampling Information
Former TRW Microwave Site
825 Stewart Drive, Sunnyvale, California

Well Number	Zone	Screen Interval (feet bgs)	Total Depth (feet bgs)	Top of Casing Elevation (feet, MSL)	U.S. EPA Test Method
EDUCTOR	A	8-16	16.5	42.24	Well Abandoned in 2014
T-1A	A	10-20	20	41.16	Well Abandoned in 2004
T-1B	B1	28-38	38	41.72	Well Abandoned in 2004
T-2A	A	10-20	20	42.16	Well Abandoned in 2014
T-2B	B1	23-33	33	42.23	Well Abandoned in 2014
T-2C	B2	51-59	59	41.38	Well Abandoned in 2014
T-3A	A	10-20	20	41.74	Well Abandoned in 2014
T-4B	B1	31.5-41.5	42	40.98	8260B
T-5B	B1	34.5-44.5	45	41.95	8260B
T-6A	A	10-20	20	39.92	-
T-7A	A	8-20	20	41.84	8260B
T-7B	B1	34-41	41	41.75	8260B
T-8A	A	8-19	19	40.48	8260B
T-8B	B1	24-36	36	40.43	8260B
T-8D	B4	90-102	102	38.83	Sampling Suspended in 2002
T-9A	A	7-19	19	39.3	8260B
T-9B	B1	28-37	37	31.56	8260B
T-9C	B3	55-65	65	38.82	8260B
T-10B	B1	23-32	32	40.13	8260B
T-10C	B2	49-59	60	39.46	8260B
T-11C	B2	46-56	56	38.78	8260B
T-12C	B2	45.5-55.5	56	40.84	8260B
T-13A	A	10-20	20	40.99	8260B
T-14A	A	10-20	20	40.81	8260B
T-15A	A	10-20	20	40.22	8260B
T-16A	A	10-20	20	40.12	8260B
T-17A	A	10-20	20	40.88	8260B
T-17B	B1	25-35	35	40.72	8260B
T-18A	A	12-22	22	41.20	8260B
T-18B	B1	41-46	46	41.41	8260B
T-19A	A	10-20	22	41.00	8260B
T-19B	B1	29-39	39	41.38	8260B
T-20A	A	7-17	20	40.86	8260B
T-20B	B1	22-27	27	40.65	8260B
T-21A	A	10-20	20	41.20	8260B
T-21B	B1	22-27	27	41.53	8260B
T-22A	A	10-20	20	NS	8260B
T-22B	B1	24-25	25	39.13	8260B
T-23A	A	10-20	20	41.44	8260B
T-23B	B1	27-30	30	39.28	8260B
T-24A	A	10-20	20	41.29	8260B
T-24B	B1	33-36	36	39.19	8260B
T-25A	A	10-20	20	40.26	8260B
T-25B	B1	25-27	27	39.12	8260B
T-25C	B1	33-36	36	38.79	8260B
36S	A	10-16	16	41.44	+
36D	A	15-20	20	41.26	+
36DD	B2	51.5-61.5	61.5	41.52	+
37S	A	9-15	15	42.01	+
38S	A	9-15	15	41.13	8260B

Notes:

+ = Sample collected and analyzed by AMD.

* Most wells were resurveyed January 15, 2018.

MSL = mean sea level

NS = not surveyed

U.S. EPA = United States Environmental Protection Agency

Top of casing elevations presented in NAVD88 (North American Vertical Datum 1988).

Wells shown in green were installed in December 2018.

Eductor screen interval and total depth revised based on September 2010 well videolog
 Top of casing elevation for Well T-10C resurveyed in 2015 after completion of well repairs.

Table 2
Groundwater Volatile Organic Compound Results - 2018
Former TRW Microwave Site
825 Stewart Drive, Sunnyvale, California

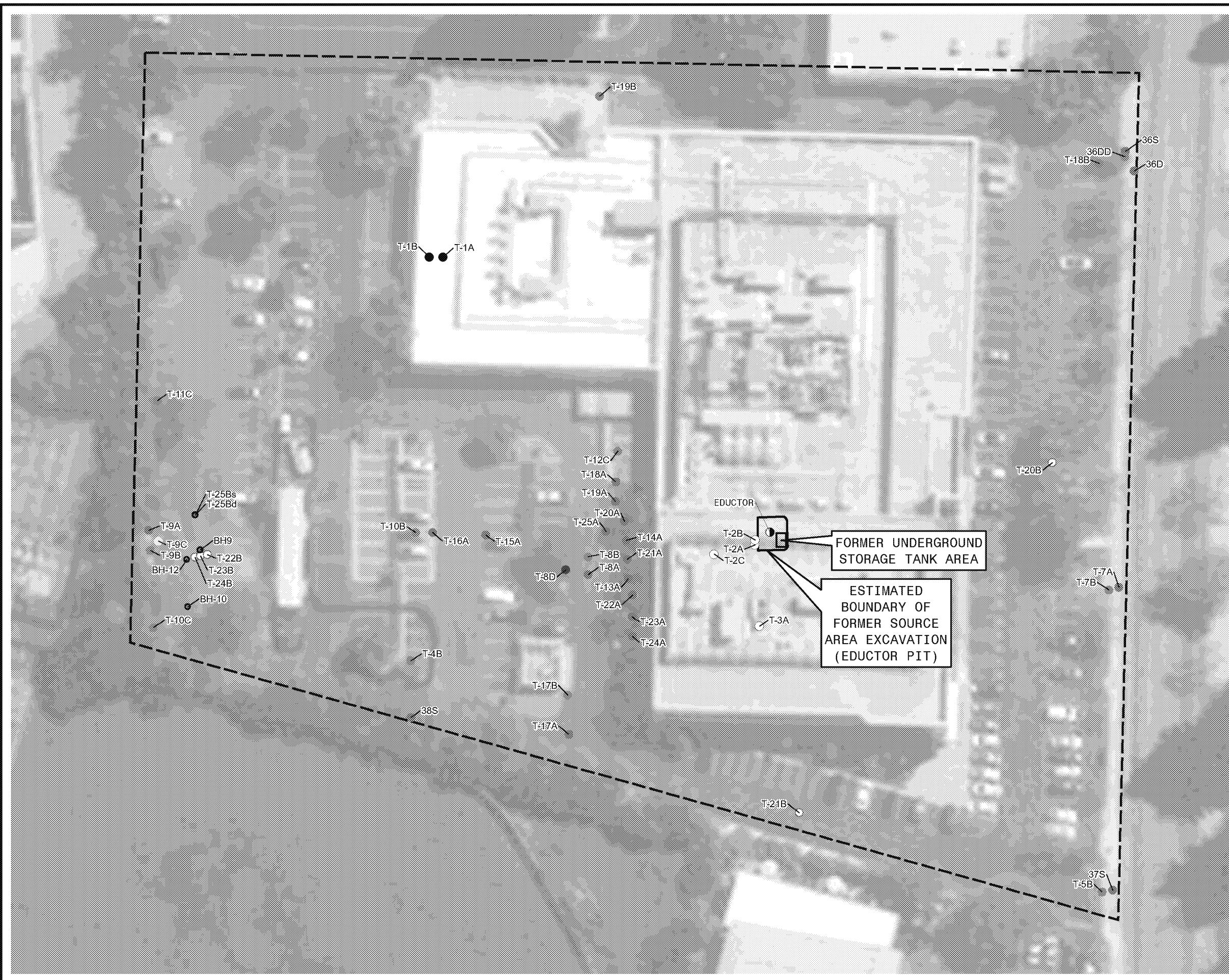
Well	Sampling Depth (ft bgs)	Sample Date	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)	1,1,1-TCA (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	Freon 113 (µg/L)	1,2-DCB (µg/L)
Hydropunch Sampling Results												
BH-10	20-23	12/4/2018	ND	5.1	380	ND	ND	ND	ND	ND	ND	ND
	30-31	12/4/2018	ND	73	520	ND	ND	ND	ND	ND	ND	ND
BH-11	22-23	12/4/2018	1.3	98	83	2.3	ND	ND	ND	ND	ND	2.7
	25-27	12/4/2018	ND	300	310	6.8	ND	ND	ND	ND	ND	ND
	33-36	12/4/2018	ND	360	82	ND	ND	ND	ND	ND	5.5	ND
BH-12	14-17	12/4/2018	ND	55	70	1.6	ND	ND	ND	ND	ND	ND
	22-25	12/4/2018	ND	83	98	ND	ND	ND	ND	ND	ND	ND
	34-36	12/7/2018	ND	120	170	ND	ND	ND	ND	ND	ND	ND
New Monitoring Well Sampling Results												
T-25Bs	25-27	12/14/2018	<5.0	350	270	6.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
T-25Bd	33-36	12/14/2018	8.2	450	77	<5.0	<5.0	<5.0	<5.0	<5.0	5.1	<5.0
Selected Existing Monitoring Well Sampling Results												
T-4B	31.5-41.5	10/9/2018	<10	<10	700	<10	<10	<10	<10	<10	<10	<10
T-9B	28-37	10/11/2018	<0.50	170	220	2.9	1.4	<0.50	1.7	0.64	<0.50	0.98
T-22B	24-25	10/11/2018	1.3	79	120	3.1	0.69	<0.50	0.95	<0.50	<0.50	2.1
T-23B	27-30	10/10/2018	1.7	95	140	3.0	0.61	<0.50	0.89	<0.50	<0.50	3.0
T-24B	33-36	10/11/2018	<0.50	48	100	1.1	3.9	<0.50	1.6	0.50	<0.50	<0.50

Notes:

< Not detected at or above the detection limit shown
 µg/L micrograms per liter
 1,1,1-TCA 1,1,1-Trichloroethane
 1,1-DCA 1,1-Dichloroethane
 1,1-DCE 1,1-Dichloroethene
 1,2-DCB 1,2-Dichlorobenzene
 bgs below ground surface

cDCE cis-1,2-Dichloroethene
 ft feet
 PCE Tetrachloroethene
 tDCE trans-1,2-Dichloroethene
 TCE Trichloroethene
 Freon 113 Trifluorotrichloroethane
 VC Vinyl Chloride

FIGURES



N

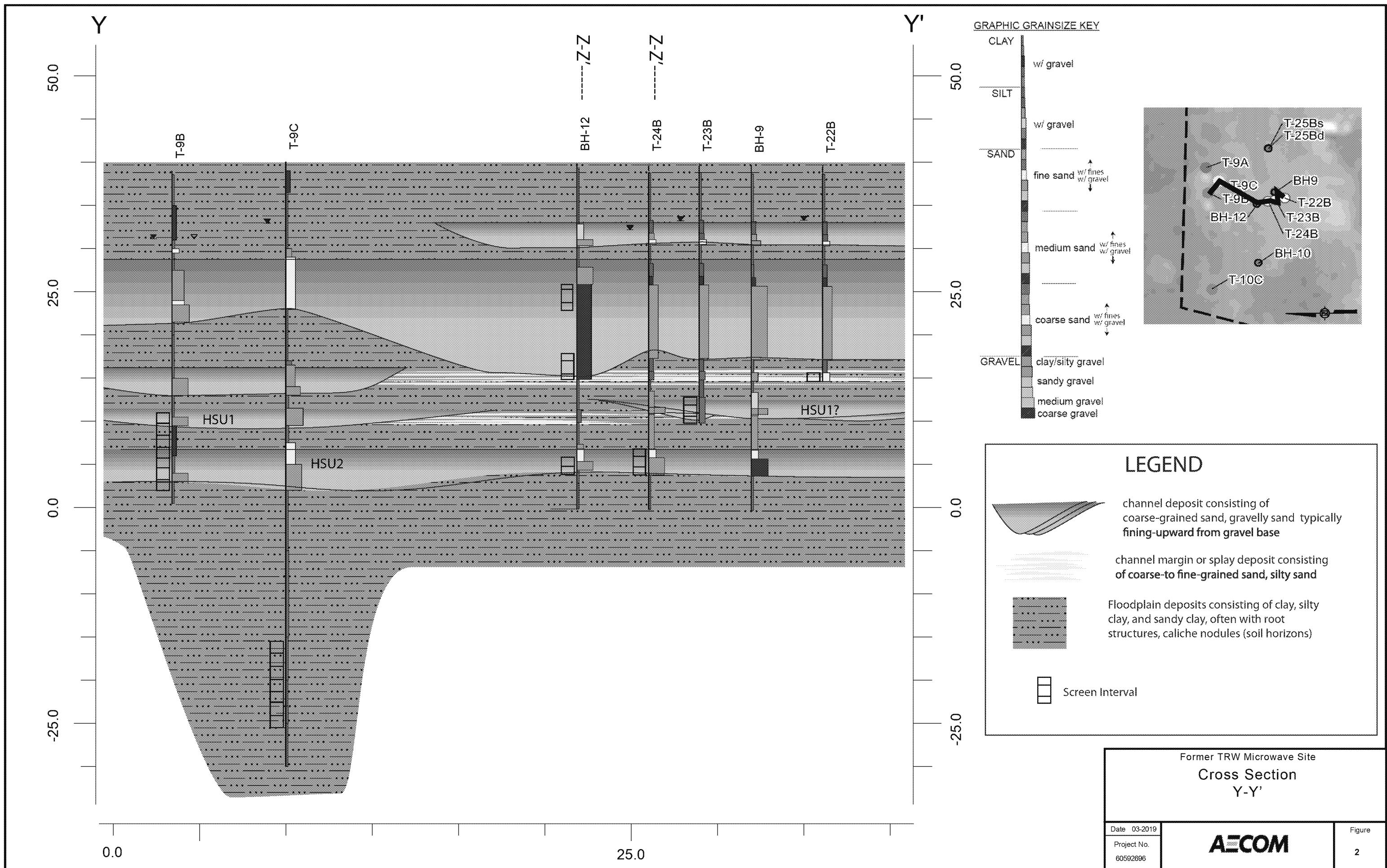
0 25 50 Feet
1" = 50'

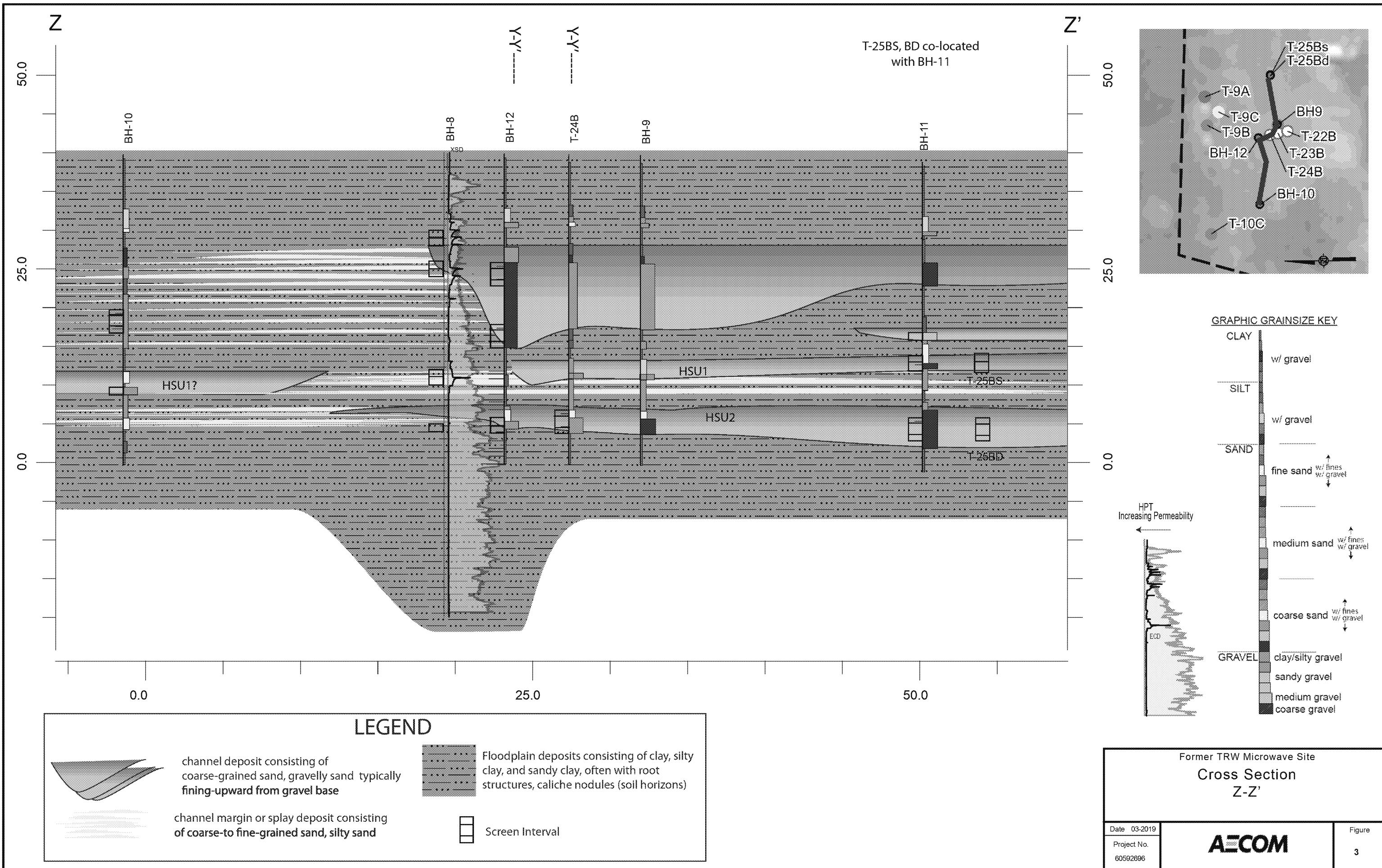
Former TRW Microwave Site
Site Layout and Well Locations

Date 03-2018
Project No. 60536411

AECOM

Figure
1





Appendices

Appendix A
Borehole and Well Construction Logs

Borehole Log

Project Name: Former Microwave Well Installation						Project Number: 60592696		Borehole Number: BH-10	
Borehole Location: 825 Stewart Dr., Sunnyvale CA				Northing: _____			Easting: _____	Sheet 1 of 2	
Drilling Agency: Penecore						Driller:	Juan Munoz		
Drilling Equipment: Geoprobe 6712DT						Date Started:	12/3/2018	Total Depth (ft bgs): 40.0	
Drilling Method: DPT				Number of Samples: 2		Date Finished:	12/3/2018	Depth to Bedrock (ft bgs): NE	
Drilling Fluid: NA				Borehole Diameter (in): 2.5	Water (ft BGS): _____	Drilling: _____	Static: _____		
Completion Information: Grouted to ground surface						Elevation (feet MSL): _____	Ground: _____	Top of Casing: _____	
						Logged By: Ben Loebner	Checked By: _____		
Depth (feet)	Samples		Field Analyses		Log		Lithologic Description	Remarks	
	Number	Type	Blow Count	Percent Recovery	Time	FID (ppm) Sample/Background			PID (ppm) Sample/Background
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

Borehole Log (Continuation Sheet)

Project Name: Former Microwave Well Installation					Project Number: 60592696		Borehole Number: BH-10		
Borehole Location: 825 Stewart Dr., Sunnyvale CA								Sheet 2 of 2	
Depth (feet)	Samples		Field Analysis		Log		Lithologic Description	Remarks	
	Number	Type	Blow Count	Percent Recovery	Time	FID (ppm) Sample/Background	PID (ppm) Sample/Background	Additional Tests	
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40								Total Depth = 40.0 feet	

Borehole/Well Construction Log

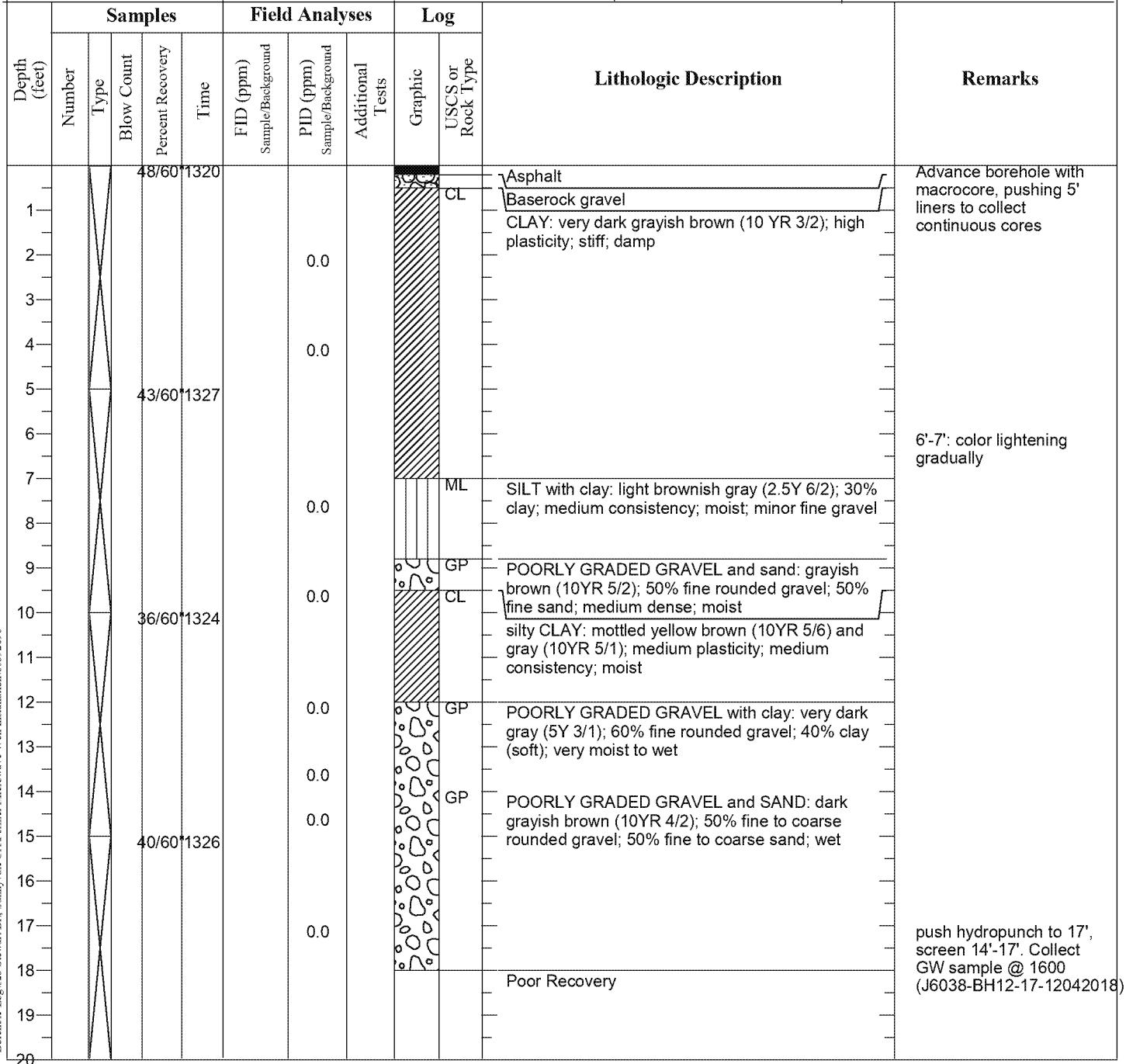
Project Name: Former Microwave Well Installation						Project Number: 60592696			Borehole Number: BH-11		
Borehole Location: 825 Stewart Dr., Sunnyvale CA						Northing: Easting:			Sheet 1 of 2		
Drilling Agency: Penecore						Driller: Juan Munoz					
Drilling Equipment: Geoprobe 6712DT						Date Started: 12/4/2018	Total Depth (ft bgs): 40.0				
Drilling Method: DPT			Number of Samples: 3		Date Finished: 12/4/2018		Depth to Bedrock (ft bgs): NE				
Drilling Fluid: NA			Borehole Diameter (in): 2.5		Depth to Water:	Drilling (FT BGS):	Static (FT BGS):				
Completion Information: Completed as dual nested monitoring wells: T25Bs (shallow) and T25Bd (deep)						Elevation (feet MSL): Ground:	Top of Casing:				
						Logged By: Ben Loebner	Checked By:				
Depth (feet)	Samples		Field Analyses		Log	Lithologic Description			Well Construction Diagram	Remarks	
	Number	Type	Blow Count	Percent Recovery	Time						FID (ppm) Sample/Background
48/60	0833						0.0		CL	Asphalt Base rock gravel CLAY: very dark grayish brown (10YR 3/2); high plasticity; stiff; damp	Advance borehole with macrocore, pushing 5' liners to collect continuous cores. Ream w/ 10-inch O.D. hollow-stem augers to install wells
5	45/60	0835					0.0		ML	SILT with clay: light brownish gray (2.5Y 6/2); 30% clay; medium consistency; moist; minor fine gravel	5'-7': color lightening gradually
10	36/60	0837					0.0		GP CL ML	POORLY GRADED GRAVEL: grayish brown (10YR 5/2); fine to medium subrounded; medium dense; very moist to wet silty CLAY: mottled yellowish brown (10YR 5/6) and gray (10YR 5/1) sandy clayey SILT: mottled yellowish brown (10YR 5/6) and gray (10YR 5/1); 60% silt; 20% clay; 20% very fine sand; medium dense; moist	
15	60/60	0839					0.0		GP	POORLY GRADED GRAVEL: grayish brown (10YR 5/2); fine to coarse subrounded gravel with fine to medium sand; medium dense; very moist to wet	
20							0.0		CL	silty CLAY: light brownish gray (10YR 6/2); 40% silt; soft; very moist. 19': Color change to gray (10YR 6/1)	19': color change to gray (10YR 6/1)

Borehole/Well Construction Log (Continuation Sheet)

Project Name: Former Microwave Well Installation						Project Number: 60592696	Borehole Number: BH-11					
Borehole Location: 825 Stewart Dr., Sunnyvale CA								Sheet 2 of 2				
Depth (feet)	Samples		Field Analysis		Log		Lithologic Description	Well Construction Diagram	Remarks			
	Number	Type	Blow Count	Percent Recovery	Time	FID (ppm) Sample/Background	PID (ppm) Sample/Background	Additional Tests	Graphic	USCS or Rock Type		
44	44/60'0813									ML	clayey SILT: mottled gray (10YR 5/1) with yellow brown (10YR 5/6); medium dense; moist	
GW												
25	60/60'0846					0.0			GP	POORLY GRADED GRAVEL and sand: dark gray (2.5Y 4/1); fine to medium subrounded gravel; 30% fine to medium sand; medium dense; very moist to wet		
GW						0.0			ML	SILT: grayish brown (2.5Y 5/2); medium dense; 20% very fine sand; moist		
						0.0			SP	POORLY GRADED SAND: grayish brown (10YR 5/2); fine sand; medium dense; wet		
30	48/60'0849					0.0			GP	POORLY GRADED GRAVEL: dark grayish brown (10YR 4/2); fine rounded gravel and coarse sand; dense; wet		
GW						0.0			SM	SILTY SAND: brown (10YR 5/3); very fine to fine sand; 40% silt; medium dense; moist		
						0.0			CL	silty CLAY: light olive brown (2.5Y 5/3); 40% silt and very fine sand; medium plasticity; medium consistency; moist		
35	48/60'0852					0.0			SM	SILTY SAND: light olive brown (2.5Y 5/3); 40% silt; very fine sand; medium dense; moist; minor rounded fine gravel		
GW						0.0			GP	POORLY GRADED GRAVEL: dark gray (10YR 4/1); fine to coarse rounded to subrounded gravel; 30% fine to coarse sand; medium dense; wet		
						0.0			CL	CLAY with silt: pale brown (10YR 6/3); 30% silt; medium plasticity; medium consistency; moist		
40										Total Depth= 40.0 feet		
EAFB_Wells[SB] \S2 Stewart Dr., Sunnyvale CA\Former Microwave Well Installation\60592696												

Borehole Log

Project Name: Former Microwave Well Installation				Project Number: 60592696	Borehole Number: BH-12
Borehole Location: 825 Stewart Dr., Sunnyvale CA				Northing:	Easting:
Drilling Agency: Penecore				Driller: Juan Munoz	Sheet 1 of 2
Drilling Equipment: Geoprobe 6712DT				Date Started: 12/4/2018	Total Depth (ft bgs): 40.0
Drilling Method: DPT		Number of Samples: 2	Date Finished: 12/4/2018		Depth to Bedrock (ft bgs): NE
Drilling Fluid: NA		Borehole Diameter (in): 2.5	Depth to Water (ft BGS): Drilling: Static:		
Completion Information: Grouted to ground surface				Elevation (feet MSL): Ground: Top of Casing:	
				Logged By: Ben Loebner	Checked By:



Borehole Log (Continuation Sheet)

Project Name: Former Microwave Well Installation						Project Number: 60592696	Borehole Number: BH-12					
Borehole Location: 825 Stewart Dr., Sunnyvale CA								Sheet 2 of 2				
Depth (feet)	Samples		Field Analysis		Log		Lithologic Description	Remarks				
	Number	Type	Blow Count	Percent Recovery	Time	FID (ppm) Sample/Background	PID (ppm) Sample/Background	Additional Tests	Graphic	USCS or Rock Type		
21	12/60	1328				0.0					POORLY GRADED GRAVEL and SAND: dark grayish brown (10YR 4/2); 50% fine to coarse rounded gravel; 50% fine to coarse sand; wet (Poor Recovery)	two tries in 20'-25' interval. First try 12" recovery. Second try 12" recovery water and winnowed sand
22						0.0						
23												
24												
25	60/60	1331				0.0					SILTY CLAY: bluish gray (5B 5/1); 20% silt; medium plasticity; medium consistency; moist	push hydropunch to 25', screen 22'-25'. Collect GW sample @ 1555 (J6038-BH12-25-12042018)
26						0.0						
27												
28						0.0						
29											ML SILT: bluish gray (5B 5/1); medium dense; moist	
30	60/60	1333				0.0					SILTY CLAY: bluish gray (5B 5/1); 30% silt; soft; medium plasticity; very moist	
31						0.0						
32												
33						0.0					SM SILTY SAND: brown (10YR 5/3); very fine sand; 20% silt; medium dense; moist	31'-32.5': change in color to grayish brown (2.5Y 5/2)
34						0.0					SP POORLY GRADED SAND: brown (10YR 4/3); fine sand; medium dense; very moist	
35						0.0					GP POORLY GRADED GRAVEL: dark grayish brown (10YR 4/2); fine to medium subrounded gravel; 20% sand; medium dense; wet	
36	36/60	1336				0.0					CL silty CLAY: brown (10YR 5/3); medium plasticity; medium; moist	push hydropunch to 36', screen 34'-36' (no sample, interval dry). attempt 33'-35' (no sample, interval dry)
37											CLAY: gray (5Y 5/1); medium to high plasticity; medium consistency; moist	39.7'-39.8': thin fine sand lens
38												
39												
40											Total Depth = 40 feet	39.8'-40': color of clay is bluish gray (5B 6/1)
												12/7/18: Push hydropunch to 36', screen 34-36'. Collect GW sample @1120 (J6038-BH12-36-12072018)

Appendix B
Well Development Logs

Well Development/Purge Log

Page 1 of 1

Project Name NGC Former Microwave Well
Development Project No. 60592696
 PID/FID Readings — (Ambient) — (Well Mouth)
 Static Levels (ft TOC) — (Product) 6.65' (Water)
 Sampling Depth (ft TOC) —
 Pump Bail Rate 0.5 gpm to 1.5 gpm Total Gal. Extracted 115
 Water Column Length 20' Well Volumes Extracted 36
 Disposition of Discharge Water DOT allows onsite Minim/Well Volume Required
 Pump Inlet Depth (ft TOC) bottom of well 26.5'
 Estimated Well Yield — (gpm/ft. drawdown) After — Hrs.

Well Information
 Development Purging
 Number T-25Bs
 Location 825 Stewart Dr.
 Site NGC Former Microwave
 Stick Up ~ -0.35 ft
 Well Diameter 2"
 Well Depth 26.65'
 Screen Interval 24.65' - 26.65' ft TOC
 Well Material PVC

Equipment Information
 Bailer Size 25 G steel
 Pump No. Prochtre Hurricane
 Flow Cell Model Horiba U-32
 Interface Probe No. —
 Sounder No. 4089-1
 pH Meter No. pH 21277
 Conductivity Meter No. "
 Thermometer No. "
 D.O. Meter No. "
 Turbidity Meter No. "
 ORP Meter No. "

Time (24 hr.)	Flow Rate (gpm)	Water Temp. (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV) +/-	^{TDS} _{Settleable Solids} (µg/L)	Gallons Dev/Purged Before Meas.	Water Level (feet TOC)	Remarks (e.g. water clarity)
0800-0810	Surge well								Ø	6.65	muddy brown with fine sand
0810-0830	Bail 10 gallons								10	6.70	
0846	1.0								10		
0856	1.0/1.5	21.05	6.61	1.52	5.66	>800	-31	0.968	20	7.52	light yellowish brown
0916	.5	21.22	7.23	1.49	1.62	>800	-108	0.951	30	7.64	flow rate at 0.5 gpm
0936	.5	21.26	7.15	1.49	0.46	>800	-122	0.953	40	7.62	light yellowish brown
0956	.5	21.38	7.14	1.49	0.08	>800	-129	0.955	50	7.71	light yellowish brown
1006	1.5/1.5								55		flow rate increases to 1.5 gpm
1016	1.5	21.52	7.17	1.47	0.00	~990	-125	0.943	70	11.31	pale yellowish brown
1026	1.5	21.50	7.17	1.47	0.00	489	-124	0.940	85	11.56	
1036	1.5	21.49	7.15	1.47	0.00	411	-123	0.938	100	11.71	generator needed refuel @ 1039
1048	1.5	21.35	7.20	1.46	0.00	49.2	-124	0.935	115	11.21	Stop pumping. Water cleaned up.

Well volume is 3.2 gals

Notes:	1 ft length	πr^2	gal.
	2"	0.022	0.16
	4"	0.087	0.65
	10"	0.55	4.1
	12"	0.79	5.9

Stability Requirements

Temperature $\pm 1^\circ \text{C}$ Conductivity $\pm 5\%$
 pH ± 0.1 unit Turbidity $\pm 10 \text{ NTU}$
 D.O. $\pm 10\%$

Recorded By Ben Hoelmer

Date 12/10/18

Checked By W.H.

Date 1/10/19



Well Development/Purge Log

 Page 1 of 1

Project Name NGC Former Microwave Well Project No. 60592696
 PID/FID Readings — (Ambient) — (Well Mouth)
 Static Levels (ft TOC) — (Product) 6.83' (Water)
 Sampling Depth (ft TOC) —
 Pump Bail Rate 1.0 gpm Total Gal. Extracted 140
 Water Column Length 29.5' Well Volumes Extracted 30
 Disposition of Discharge Water DOT was on site Minim/Well Volume Required —
 Pump Inlet Depth (ft TOC) ~35
 Estimated Well Yield — (gpm/ft. drawdown) After — Hrs.

Well Information									
<input checked="" type="checkbox"/> Development <input type="checkbox"/> Purging									
Number <u>T-25Bd</u>									
Location <u>835 Stewart Dr.</u>									
Site <u>NGC Former Microwave</u>									
Slick Up <u>-0.75</u> ft									
Well Diameter <u>2"</u>									
Well Depth <u>36.35'</u> ft TOC									
Screen Interval <u>33.35'-36.35'</u> ft TOC									
Well Material <u>PVC</u>									

Equipment Information									
Bailer Size <u>.25G Steel</u>									
Pump No. <u>Proactive Hurricane</u>									
Flow Cell Model <u>Heritage U-S2</u>									
Interface Probe No. <u>—</u>									
Sounder No. <u>4089-1</u>									
pH Meter No. <u>Fluke 21277</u>									
Conductivity Meter No. <u>—</u>									
Thermometer No. <u>—</u>									
D.O. Meter No. <u>—</u>									
Turbidity Meter No. <u>—</u>									
ORP Meter No. <u>—</u>									

Time (24 hr.)	Flow Rate (gpm)	Water Temp. (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV) +/-	Settles- able Solids (µg/L)	Gallons Dev/Purged Before Meas.	Water Level (feet TOC)	Remarks (e.g. water clarity)
1100-1107											muddy brown and fine sand
1107-1134											mtlk chocolate brown
1137	1.0								10	7.40	
1207	1.0	20.54	6.65	1.10	5.87	>1000	22	0.704	10	7.40	1147 w.t. 7.55' light yellowish brown
1227	1.0	20.56	7.22	1.10	0.00	822	-35	0.699	60	7.52	pale yellowish brown
1237	1.0	20.57	7.19	1.09	0.00	693	-35	0.700	70	7.50	pale yellowish brown
1247	1.0	20.56	7.10	1.09	0.00	375	-29	0.698	80	7.47	pale straw-yellow
1257	1.0	20.58	7.14	1.09	0.00	324	-28	0.697	90	7.46	
1307	1.0	20.64	7.18	1.10	0.00	287	-29	0.701	100	7.44	pale straw-yellow
1317	1.0	20.61	7.29	1.09	0.00	321	-32	0.702	110	7.43	pale straw yellow
1327	1.0	20.58	7.25	1.09	0.00	346	-29	0.700	120	7.42	
1337	1.0	20.61	7.20	1.09	0.00	191	-24	0.698	130	7.41	
1347	1.0	20.61	7.15	1.09	0.00	215	-18	0.695	140	7.40	v.pale straw yellow

Notes:	1 ft length	πr^2	gal.
	2"	0.022	0.16
	4"	0.087	0.65
	10"	0.55	4.1
	12"	0.79	5.9

Stability Requirements
 Temperature $\pm 1^\circ \text{C}$ Conductivity $\pm 5\%$
 pH ± 0.1 unit Turbidity $\pm 10 \text{ NTU}$
 D.O. $\pm 10\%$

 Recorded By Ben Leibner

 Date 12/10/18

 Checked By W.H.

 Date 1/10/19

 F-1003
04/11

Appendix C

Low-Flow/Minimal Drawdown Sampling Logs

Low Flow/Minimal Drawdown Well Sampling Log

 Well Number T-25Bd

 Page 1 of 1

Project Name NGC former Microw Project No. 60592696
 PID/FID Readings (ft TOC) (Ambient) (Well Mouth)
 Static Levels (ft TOC) (Product) (Water)
 Optimum Pump Rate (L/min) Total Liters Extracted 13.2
 Disposition of Discharge Water See notes from onsite
 Water Column Length (ft) ~3262 Minimum Purge Volume (L) NA
 Optimum Controller Settings: Bail Dedicated Portable (SN)
 Refill Time (sec) 8 Discharge Time (sec) 7 Discharge Pressure (psi) 40
 Sample No. 36038-T-25Bd Sample Analysis VOL
 Volume Discharged per Purge (mL) UNK

Well Information												
Number												T25Bd
Location												Sunnyvale
Site												NGC Microwave
Stick Up												~0.75 ft
Pump/Samp. Depth												34.5 ft TOC
Well Diameter												2"
Well Depth												36.35 ft TOC
Screen Interval												33.35-36.35 ft TOC
Well Material												PVC

Equipment Information												
Interface Probe No.												122004589-1
Sounder No.												
Flow Cell Model												YSI
pH Meter No.												171L04040
Conductivity Meter No.												
Thermometer No.												
D.O. Meter No.												
Turbidity Meter No.												Inanite 6363-1210
ORP Meter No.												161L04040
Hach Kit No.												

Time (24 hr.)	Flow Rate (L/min)	Refill Cycle (sec)	Discharge Cycle (sec)	Discharge Pressure (feet)	Water Temp. (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV) +/-	Liters Purged Before Meas.	Water Level (feet TOC)	Remarks (e.g. water clarity)
845	0.4	8	87		21.3	7.15	0.93	1.07	Max	164.0	1.2	6.34	Turbid, Mlokate HC
848	0.4	8	7		21.0	7.09	0.91	0.31	3822 ^W	162.8	2.4	6.35	odor
851	0.4	8	7		21.1	7.09	0.91	0.27	3327 ^W	162.3	3.6	6.37	
854	0.4	8	7		21.0	7.09	0.92	0.20	2607 ^W	161.5	4.8	6.37	
857	0.4	8	7		20.9	7.08	0.92	0.18	Max	160.7	6.0	6.37	Slightly Turbid
908	0.4	8	7		20.7	7.08	0.91	0.32	Max	158.8	9.6	6.37	Paused for 15 min
90911	0.4	8	7		21.0	7.08	0.92	0.18	Max	156.3	10.8	6.37	Troubleshoot Turbidity
920	0.4	8	7		20.9	7.08	0.92	0.15	Max	155.6	12.0	6.37	
923	0.4	8	7		20.9	7.08	0.92	0.11	Max	155.1	13.2	6.37	Total Purged 35 gal

1 PSI = 2.31 feet of water

Bladder Volume = 0.495 L = 0.131 gal

1/4" I.D. Tubing Volume = 0.010 L/ft = 0.002 gal/ft

3/16" I.D. Tubing Volume = 0.006 L/ft

Stability Requirements

Temperature ±1°C Conductivity ±5%

pH ±0.1 unit

Turbidity ±10 NTU

D.O. ±10%

Hach DO (mg/L)= _____

 Hach Fe⁺⁺ (mg/L)= _____

 Recorded By Ryan Brumgar Date 12/14/18

 Checked By Beth Date 1/10/19
AECOM

 Sampled at 927

Low Flow/Minimal Drawdown Well Sampling Log

Well Number T-25Bs

Page 1 of 1

Project Name NGL Former Microwave Project No. 60592696
 PID/FID Readings (ppm) - (Ambient) - (Well Mouth)
 Static Levels (TOC) 0 (Product) 5.89' (Water)
 Optimum Pump Rate (L/min) - Total Liters Extracted 4.50
 Disposition of Discharge Water Drains onsite
 Water Column Length (ft) ~21ft Minimum Purge Volume (L) NA
 Optimum Controller Settings: Bail Dedicated Portable (SN)
 Refill Time (sec) 10 Discharge Time (sec) 5 Discharge Pressure (psi) 40
 Sample No. 36038-T-25Bs Sample Analysis VOC
 Volume Discharged per Purge (mL) Unk

Well Information
 Number T-25Bs
 Location Sunnyvale
 Site -
 Stick Up ~0.35 ft
 Pump/Samp. Depth 25.5 ft TOC
 Well Diameter 2"
 Well Depth 26.65 ft TOC
 Screen Interval 24.65-26.65 ft TOC
 Well Material PVC

Equipment Information
 Interface Probe No. 22004089-1
 Sounder No. -
 Flow Cell Model 4SE
 pH Meter No. 171LC4040
 Conductivity Meter No. -
 Thermometer No. -
 D.O. Meter No. -
 Turbidity Meter No. Lemotte 6363-1216
 ORP Meter No. 1L1LC4040
 Hach Kit No. -

Time (24 hr.)	Flow Rate (L/min)	Refill Cycle (sec)	Discharge Cycle (sec)	Discharge Pressure (feet)	Water Temp. (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV) +/-	Liters Purged Before Meas.	Water Level (feet TOC)	Remarks (e.g. water clarity)
0951	0.25	10	5	0.75	21.7	7.16	151	0.26	Max	149.7	0.75	6.25	Slightly turbid
1000	0.25	10	5	1.50	21.6	7.20	159	0.24	Max	148.3	1.50	6.18	No odor
1003	0.25	10	5		21.6	7.21	160	0.24	Max	146.7	2.25	6.20	Fixed Turbidity Meter
1026	0.25	10	5		21.7	7.17	161	0.26	21.9	137.1	3.0	6.18	
1029	0.25	10	5		21.7	7.17	159	0.16	14.5	136.3	3.75	6.18	
1032	0.25	10	5		21.6	7.14	157	0.19	9.59	134.9	4.50	6.18	
													Sampled @ 1035

1 PSI = 2.31 feet of water

Bladder Volume = 0.495 L = 0.131 gal
 1/4" I.D. Tubing Volume = 0.010 L/ft = 0.002 gal/ft
 3/16" I.D. Tubing Volume = 0.006 L/ft

Stability Requirements

Temperature ±1° C Conductivity ±5%
 pH ±0.1 unit Turbidity ±10 NTU
 D.O. ±10%

Hach DO (mg/L) = _____

Hach Fe⁺⁺ (mg/L) = _____

Recorded By Ryan Briniger Date 12/14/18

Checked By YH YH Date 1/10/19

AECOM

Appendix D
Analytical Laboratory Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-90102-1

Client Project/Site: Former TRW Microwave

For:

AECOM

999 Town & Country Road

4th Floor

Orange, California 92868

Attn: Holly Holbrook

Holly Holbrook

Authorized for release by:

12/5/2018 4:45:56 PM

Afsaneh Salimpour, Senior Project Manager

(925)484-1919

afsaneh.salimpour@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
Surrogate Summary	22
QC Sample Results	23
QC Association Summary	33
Lab Chronicle	34
Certification Summary	36
Method Summary	37
Sample Summary	38
Chain of Custody	39
Receipt Checklists	41

Definitions/Glossary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Glossary

Abbreviation **These commonly used abbreviations may or may not be present in this report.**

%	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: AECOM
Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Job ID: 720-90102-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-90102-1

Comments

No additional comments.

Receipt

The samples were received on 12/5/2018 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.5° C.

GC/MS VOA

Method(s) 8260B: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, : J6038-BH12-17-12042018 (720-90102-7). The sample was analyzed within 7 days per EPA recommendation.

Method(s) 8260B: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, : J6038-BH11-23-12042018 (720-90102-3) and J6038-BH11-36-12042018 (720-90102-5).The sample was analyzed within 7 days per EPA recommendation.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH10-23-12042018

Lab Sample ID: 720-90102-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	380		5.0		ug/L	10		8260B	Total/NA
Trichloroethene	5.1		5.0		ug/L	10		8260B	Total/NA

Client Sample ID: J6038-BH10-32-12042018

Lab Sample ID: 720-90102-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	520		5.0		ug/L	10		8260B	Total/NA
Trichloroethene	73		5.0		ug/L	10		8260B	Total/NA

Client Sample ID: J6038-BH11-23-12042018

Lab Sample ID: 720-90102-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	2.7		1.0		ug/L	2		8260B	Total/NA
cis-1,2-Dichloroethene	83		1.0		ug/L	2		8260B	Total/NA
trans-1,2-Dichloroethene	2.3		1.0		ug/L	2		8260B	Total/NA
Tetrachloroethene	1.3		1.0		ug/L	2		8260B	Total/NA
Trichloroethene	98		1.0		ug/L	2		8260B	Total/NA

Client Sample ID: J6038-BH11-27-12042018

Lab Sample ID: 720-90102-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	310		5.0		ug/L	10		8260B	Total/NA
trans-1,2-Dichloroethene	6.8		5.0		ug/L	10		8260B	Total/NA
Trichloroethene	300		5.0		ug/L	10		8260B	Total/NA

Client Sample ID: J6038-BH11-36-12042018

Lab Sample ID: 720-90102-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	82		5.0		ug/L	10		8260B	Total/NA
Trichloroethene	360		5.0		ug/L	10		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	5.5		5.0		ug/L	10		8260B	Total/NA

Client Sample ID: J6038-TRIPBLANK-12042018

Lab Sample ID: 720-90102-6

No Detections.

Client Sample ID: J6038-BH12-17-12042018

Lab Sample ID: 720-90102-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	70		1.0		ug/L	2		8260B	Total/NA
trans-1,2-Dichloroethene	1.6		1.0		ug/L	2		8260B	Total/NA
Trichloroethene	55		1.0		ug/L	2		8260B	Total/NA

Client Sample ID: J6038-BH12-25-12042018

Lab Sample ID: 720-90102-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	98		2.5		ug/L	5		8260B	Total/NA
Trichloroethene	83		2.5		ug/L	5		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH10-23-12042018

Date Collected: 12/04/18 11:40

Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/L			12/05/18 14:39	10
Acetone	ND		500		ug/L			12/05/18 14:39	10
Benzene	ND		5.0		ug/L			12/05/18 14:39	10
Dichlorobromomethane	ND		5.0		ug/L			12/05/18 14:39	10
Bromobenzene	ND		10		ug/L			12/05/18 14:39	10
Chlorobromomethane	ND		10		ug/L			12/05/18 14:39	10
Bromoform	ND		10		ug/L			12/05/18 14:39	10
Bromomethane	ND		10		ug/L			12/05/18 14:39	10
2-Butanone (MEK)	ND		500		ug/L			12/05/18 14:39	10
n-Butylbenzene	ND		10		ug/L			12/05/18 14:39	10
sec-Butylbenzene	ND		10		ug/L			12/05/18 14:39	10
tert-Butylbenzene	ND		10		ug/L			12/05/18 14:39	10
Carbon disulfide	ND		50		ug/L			12/05/18 14:39	10
Carbon tetrachloride	ND		5.0		ug/L			12/05/18 14:39	10
Chlorobenzene	ND		5.0		ug/L			12/05/18 14:39	10
Chloroethane	ND		10		ug/L			12/05/18 14:39	10
Chloroform	ND		10		ug/L			12/05/18 14:39	10
Chloromethane	ND		10		ug/L			12/05/18 14:39	10
2-Chlorotoluene	ND		5.0		ug/L			12/05/18 14:39	10
4-Chlorotoluene	ND		5.0		ug/L			12/05/18 14:39	10
Chlorodibromomethane	ND		5.0		ug/L			12/05/18 14:39	10
1,2-Dichlorobenzene	ND		5.0		ug/L			12/05/18 14:39	10
1,3-Dichlorobenzene	ND		5.0		ug/L			12/05/18 14:39	10
1,4-Dichlorobenzene	ND		5.0		ug/L			12/05/18 14:39	10
1,3-Dichloropropane	ND		10		ug/L			12/05/18 14:39	10
1,1-Dichloropropene	ND		5.0		ug/L			12/05/18 14:39	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			12/05/18 14:39	10
Ethylene Dibromide	ND		5.0		ug/L			12/05/18 14:39	10
Dibromomethane	ND		5.0		ug/L			12/05/18 14:39	10
Dichlorodifluoromethane	ND		5.0		ug/L			12/05/18 14:39	10
1,1-Dichloroethane	ND		5.0		ug/L			12/05/18 14:39	10
1,2-Dichloroethane	ND		5.0		ug/L			12/05/18 14:39	10
1,1-Dichloroethene	ND		5.0		ug/L			12/05/18 14:39	10
cis-1,2-Dichloroethene	380		5.0		ug/L			12/05/18 14:39	10
trans-1,2-Dichloroethene	ND		5.0		ug/L			12/05/18 14:39	10
1,2-Dichloropropane	ND		5.0		ug/L			12/05/18 14:39	10
cis-1,3-Dichloropropene	ND		5.0		ug/L			12/05/18 14:39	10
trans-1,3-Dichloropropene	ND		5.0		ug/L			12/05/18 14:39	10
Ethylbenzene	ND		5.0		ug/L			12/05/18 14:39	10
Hexachlorobutadiene	ND		10		ug/L			12/05/18 14:39	10
2-Hexanone	ND		500		ug/L			12/05/18 14:39	10
Isopropylbenzene	ND		5.0		ug/L			12/05/18 14:39	10
4-Isopropyltoluene	ND		10		ug/L			12/05/18 14:39	10
Methylene Chloride	ND		50		ug/L			12/05/18 14:39	10
4-Methyl-2-pentanone (MIBK)	ND		500		ug/L			12/05/18 14:39	10
Naphthalene	ND		10		ug/L			12/05/18 14:39	10
N-Propylbenzene	ND		10		ug/L			12/05/18 14:39	10
Styrene	ND		5.0		ug/L			12/05/18 14:39	10
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			12/05/18 14:39	10

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH10-23-12042018

Lab Sample ID: 720-90102-1

Date Collected: 12/04/18 11:40

Matrix: Water

Date Received: 12/05/18 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			12/05/18 14:39	10
Tetrachloroethene	ND		5.0		ug/L			12/05/18 14:39	10
Toluene	ND		5.0		ug/L			12/05/18 14:39	10
1,2,3-Trichlorobenzene	ND		10		ug/L			12/05/18 14:39	10
1,2,4-Trichlorobenzene	ND		10		ug/L			12/05/18 14:39	10
1,1,1-Trichloroethane	ND		5.0		ug/L			12/05/18 14:39	10
1,1,2-Trichloroethane	ND		5.0		ug/L			12/05/18 14:39	10
Trichloroethene	5.1		5.0		ug/L			12/05/18 14:39	10
Trichlorofluoromethane	ND		10		ug/L			12/05/18 14:39	10
1,2,3-Trichloropropane	ND		10		ug/L			12/05/18 14:39	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			12/05/18 14:39	10
1,2,4-Trimethylbenzene	ND		5.0		ug/L			12/05/18 14:39	10
1,3,5-Trimethylbenzene	ND		5.0		ug/L			12/05/18 14:39	10
Vinyl acetate	ND		100		ug/L			12/05/18 14:39	10
Vinyl chloride	ND		5.0		ug/L			12/05/18 14:39	10
Xylenes, Total	ND		5.0		ug/L			12/05/18 14:39	10
2,2-Dichloropropane	ND		5.0		ug/L			12/05/18 14:39	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130					12/05/18 14:39	10
1,2-Dichloroethane-d4 (Surr)	102		72 - 130					12/05/18 14:39	10
Toluene-d8 (Surr)	99		70 - 130					12/05/18 14:39	10

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH10-32-12042018

Date Collected: 12/04/18 11:50

Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/L			12/05/18 14:29	10
Acetone	ND		500		ug/L			12/05/18 14:29	10
Benzene	ND		5.0		ug/L			12/05/18 14:29	10
Dichlorobromomethane	ND		5.0		ug/L			12/05/18 14:29	10
Bromobenzene	ND		10		ug/L			12/05/18 14:29	10
Chlorobromomethane	ND		10		ug/L			12/05/18 14:29	10
Bromoform	ND		10		ug/L			12/05/18 14:29	10
Bromomethane	ND		10		ug/L			12/05/18 14:29	10
2-Butanone (MEK)	ND		500		ug/L			12/05/18 14:29	10
n-Butylbenzene	ND		10		ug/L			12/05/18 14:29	10
sec-Butylbenzene	ND		10		ug/L			12/05/18 14:29	10
tert-Butylbenzene	ND		10		ug/L			12/05/18 14:29	10
Carbon disulfide	ND		50		ug/L			12/05/18 14:29	10
Carbon tetrachloride	ND		5.0		ug/L			12/05/18 14:29	10
Chlorobenzene	ND		5.0		ug/L			12/05/18 14:29	10
Chloroethane	ND		10		ug/L			12/05/18 14:29	10
Chloroform	ND		10		ug/L			12/05/18 14:29	10
Chloromethane	ND		10		ug/L			12/05/18 14:29	10
2-Chlorotoluene	ND		5.0		ug/L			12/05/18 14:29	10
4-Chlorotoluene	ND		5.0		ug/L			12/05/18 14:29	10
Chlorodibromomethane	ND		5.0		ug/L			12/05/18 14:29	10
1,2-Dichlorobenzene	ND		5.0		ug/L			12/05/18 14:29	10
1,3-Dichlorobenzene	ND		5.0		ug/L			12/05/18 14:29	10
1,4-Dichlorobenzene	ND		5.0		ug/L			12/05/18 14:29	10
1,3-Dichloropropane	ND		10		ug/L			12/05/18 14:29	10
1,1-Dichloropropene	ND		5.0		ug/L			12/05/18 14:29	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			12/05/18 14:29	10
Ethylene Dibromide	ND		5.0		ug/L			12/05/18 14:29	10
Dibromomethane	ND		5.0		ug/L			12/05/18 14:29	10
Dichlorodifluoromethane	ND		5.0		ug/L			12/05/18 14:29	10
1,1-Dichloroethane	ND		5.0		ug/L			12/05/18 14:29	10
1,2-Dichloroethane	ND		5.0		ug/L			12/05/18 14:29	10
1,1-Dichloroethene	ND		5.0		ug/L			12/05/18 14:29	10
cis-1,2-Dichloroethene	520		5.0		ug/L			12/05/18 14:29	10
trans-1,2-Dichloroethene	ND		5.0		ug/L			12/05/18 14:29	10
1,2-Dichloropropane	ND		5.0		ug/L			12/05/18 14:29	10
cis-1,3-Dichloropropene	ND		5.0		ug/L			12/05/18 14:29	10
trans-1,3-Dichloropropene	ND		5.0		ug/L			12/05/18 14:29	10
Ethylbenzene	ND		5.0		ug/L			12/05/18 14:29	10
Hexachlorobutadiene	ND		10		ug/L			12/05/18 14:29	10
2-Hexanone	ND		500		ug/L			12/05/18 14:29	10
Isopropylbenzene	ND		5.0		ug/L			12/05/18 14:29	10
4-Isopropyltoluene	ND		10		ug/L			12/05/18 14:29	10
Methylene Chloride	ND		50		ug/L			12/05/18 14:29	10
4-Methyl-2-pentanone (MIBK)	ND		500		ug/L			12/05/18 14:29	10
Naphthalene	ND		10		ug/L			12/05/18 14:29	10
N-Propylbenzene	ND		10		ug/L			12/05/18 14:29	10
Styrene	ND		5.0		ug/L			12/05/18 14:29	10
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			12/05/18 14:29	10

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH10-32-12042018

Lab Sample ID: 720-90102-2

Matrix: Water

Date Collected: 12/04/18 11:50

Date Received: 12/05/18 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			12/05/18 14:29	10
Tetrachloroethene	ND		5.0		ug/L			12/05/18 14:29	10
Toluene	ND		5.0		ug/L			12/05/18 14:29	10
1,2,3-Trichlorobenzene	ND		10		ug/L			12/05/18 14:29	10
1,2,4-Trichlorobenzene	ND		10		ug/L			12/05/18 14:29	10
1,1,1-Trichloroethane	ND		5.0		ug/L			12/05/18 14:29	10
1,1,2-Trichloroethane	ND		5.0		ug/L			12/05/18 14:29	10
Trichloroethene	73		5.0		ug/L			12/05/18 14:29	10
Trichlorofluoromethane	ND		10		ug/L			12/05/18 14:29	10
1,2,3-Trichloropropane	ND		10		ug/L			12/05/18 14:29	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			12/05/18 14:29	10
1,2,4-Trimethylbenzene	ND		5.0		ug/L			12/05/18 14:29	10
1,3,5-Trimethylbenzene	ND		5.0		ug/L			12/05/18 14:29	10
Vinyl acetate	ND		100		ug/L			12/05/18 14:29	10
Vinyl chloride	ND		5.0		ug/L			12/05/18 14:29	10
Xylenes, Total	ND		5.0		ug/L			12/05/18 14:29	10
2,2-Dichloropropane	ND		5.0		ug/L			12/05/18 14:29	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 130					12/05/18 14:29	10
1,2-Dichloroethane-d4 (Surr)	104		72 - 130					12/05/18 14:29	10
Toluene-d8 (Surr)	99		70 - 130					12/05/18 14:29	10

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH11-23-12042018

Date Collected: 12/04/18 12:30

Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0		ug/L			12/05/18 15:06	2
Acetone	ND		100		ug/L			12/05/18 15:06	2
Benzene	ND		1.0		ug/L			12/05/18 15:06	2
Dichlorobromomethane	ND		1.0		ug/L			12/05/18 15:06	2
Bromobenzene	ND		2.0		ug/L			12/05/18 15:06	2
Chlorobromomethane	ND		2.0		ug/L			12/05/18 15:06	2
Bromoform	ND		2.0		ug/L			12/05/18 15:06	2
Bromomethane	ND		2.0		ug/L			12/05/18 15:06	2
2-Butanone (MEK)	ND		100		ug/L			12/05/18 15:06	2
n-Butylbenzene	ND		2.0		ug/L			12/05/18 15:06	2
sec-Butylbenzene	ND		2.0		ug/L			12/05/18 15:06	2
tert-Butylbenzene	ND		2.0		ug/L			12/05/18 15:06	2
Carbon disulfide	ND		10		ug/L			12/05/18 15:06	2
Carbon tetrachloride	ND		1.0		ug/L			12/05/18 15:06	2
Chlorobenzene	ND		1.0		ug/L			12/05/18 15:06	2
Chloroethane	ND		2.0		ug/L			12/05/18 15:06	2
Chloroform	ND		2.0		ug/L			12/05/18 15:06	2
Chloromethane	ND		2.0		ug/L			12/05/18 15:06	2
2-Chlorotoluene	ND		1.0		ug/L			12/05/18 15:06	2
4-Chlorotoluene	ND		1.0		ug/L			12/05/18 15:06	2
Chlorodibromomethane	ND		1.0		ug/L			12/05/18 15:06	2
1,2-Dichlorobenzene	2.7		1.0		ug/L			12/05/18 15:06	2
1,3-Dichlorobenzene	ND		1.0		ug/L			12/05/18 15:06	2
1,4-Dichlorobenzene	ND		1.0		ug/L			12/05/18 15:06	2
1,3-Dichloropropane	ND		2.0		ug/L			12/05/18 15:06	2
1,1-Dichloropropene	ND		1.0		ug/L			12/05/18 15:06	2
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/05/18 15:06	2
Ethylene Dibromide	ND		1.0		ug/L			12/05/18 15:06	2
Dibromomethane	ND		1.0		ug/L			12/05/18 15:06	2
Dichlorodifluoromethane	ND		1.0		ug/L			12/05/18 15:06	2
1,1-Dichloroethane	ND		1.0		ug/L			12/05/18 15:06	2
1,2-Dichloroethane	ND		1.0		ug/L			12/05/18 15:06	2
1,1-Dichloroethene	ND		1.0		ug/L			12/05/18 15:06	2
cis-1,2-Dichloroethene	83		1.0		ug/L			12/05/18 15:06	2
trans-1,2-Dichloroethene	2.3		1.0		ug/L			12/05/18 15:06	2
1,2-Dichloropropane	ND		1.0		ug/L			12/05/18 15:06	2
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/05/18 15:06	2
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/05/18 15:06	2
Ethylbenzene	ND		1.0		ug/L			12/05/18 15:06	2
Hexachlorobutadiene	ND		2.0		ug/L			12/05/18 15:06	2
2-Hexanone	ND		100		ug/L			12/05/18 15:06	2
Isopropylbenzene	ND		1.0		ug/L			12/05/18 15:06	2
4-Isopropyltoluene	ND		2.0		ug/L			12/05/18 15:06	2
Methylene Chloride	ND		10		ug/L			12/05/18 15:06	2
4-Methyl-2-pentanone (MIBK)	ND		100		ug/L			12/05/18 15:06	2
Naphthalene	ND		2.0		ug/L			12/05/18 15:06	2
N-Propylbenzene	ND		2.0		ug/L			12/05/18 15:06	2
Styrene	ND		1.0		ug/L			12/05/18 15:06	2
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/05/18 15:06	2

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH11-23-12042018

Lab Sample ID: 720-90102-3

Matrix: Water

Date Collected: 12/04/18 12:30

Date Received: 12/05/18 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/05/18 15:06	2
Tetrachloroethene	1.3		1.0		ug/L			12/05/18 15:06	2
Toluene	ND		1.0		ug/L			12/05/18 15:06	2
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/05/18 15:06	2
1,2,4-Trichlorobenzene	ND		2.0		ug/L			12/05/18 15:06	2
1,1,1-Trichloroethane	ND		1.0		ug/L			12/05/18 15:06	2
1,1,2-Trichloroethane	ND		1.0		ug/L			12/05/18 15:06	2
Trichloroethene	98		1.0		ug/L			12/05/18 15:06	2
Trichlorofluoromethane	ND		2.0		ug/L			12/05/18 15:06	2
1,2,3-Trichloropropane	ND		2.0		ug/L			12/05/18 15:06	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			12/05/18 15:06	2
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/05/18 15:06	2
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/05/18 15:06	2
Vinyl acetate	ND		20		ug/L			12/05/18 15:06	2
Vinyl chloride	ND		1.0		ug/L			12/05/18 15:06	2
Xylenes, Total	ND		1.0		ug/L			12/05/18 15:06	2
2,2-Dichloropropane	ND		1.0		ug/L			12/05/18 15:06	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 130					12/05/18 15:06	2
1,2-Dichloroethane-d4 (Surr)	102		72 - 130					12/05/18 15:06	2
Toluene-d8 (Surr)	100		70 - 130					12/05/18 15:06	2

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH11-27-12042018

Date Collected: 12/04/18 12:40

Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/L			12/05/18 15:32	10
Acetone	ND		500		ug/L			12/05/18 15:32	10
Benzene	ND		5.0		ug/L			12/05/18 15:32	10
Dichlorobromomethane	ND		5.0		ug/L			12/05/18 15:32	10
Bromobenzene	ND		10		ug/L			12/05/18 15:32	10
Chlorobromomethane	ND		10		ug/L			12/05/18 15:32	10
Bromoform	ND		10		ug/L			12/05/18 15:32	10
Bromomethane	ND		10		ug/L			12/05/18 15:32	10
2-Butanone (MEK)	ND		500		ug/L			12/05/18 15:32	10
n-Butylbenzene	ND		10		ug/L			12/05/18 15:32	10
sec-Butylbenzene	ND		10		ug/L			12/05/18 15:32	10
tert-Butylbenzene	ND		10		ug/L			12/05/18 15:32	10
Carbon disulfide	ND		50		ug/L			12/05/18 15:32	10
Carbon tetrachloride	ND		5.0		ug/L			12/05/18 15:32	10
Chlorobenzene	ND		5.0		ug/L			12/05/18 15:32	10
Chloroethane	ND		10		ug/L			12/05/18 15:32	10
Chloroform	ND		10		ug/L			12/05/18 15:32	10
Chloromethane	ND		10		ug/L			12/05/18 15:32	10
2-Chlorotoluene	ND		5.0		ug/L			12/05/18 15:32	10
4-Chlorotoluene	ND		5.0		ug/L			12/05/18 15:32	10
Chlorodibromomethane	ND		5.0		ug/L			12/05/18 15:32	10
1,2-Dichlorobenzene	ND		5.0		ug/L			12/05/18 15:32	10
1,3-Dichlorobenzene	ND		5.0		ug/L			12/05/18 15:32	10
1,4-Dichlorobenzene	ND		5.0		ug/L			12/05/18 15:32	10
1,3-Dichloropropane	ND		10		ug/L			12/05/18 15:32	10
1,1-Dichloropropene	ND		5.0		ug/L			12/05/18 15:32	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			12/05/18 15:32	10
Ethylene Dibromide	ND		5.0		ug/L			12/05/18 15:32	10
Dibromomethane	ND		5.0		ug/L			12/05/18 15:32	10
Dichlorodifluoromethane	ND		5.0		ug/L			12/05/18 15:32	10
1,1-Dichloroethane	ND		5.0		ug/L			12/05/18 15:32	10
1,2-Dichloroethane	ND		5.0		ug/L			12/05/18 15:32	10
1,1-Dichloroethene	ND		5.0		ug/L			12/05/18 15:32	10
cis-1,2-Dichloroethene	310		5.0		ug/L			12/05/18 15:32	10
trans-1,2-Dichloroethene	6.8		5.0		ug/L			12/05/18 15:32	10
1,2-Dichloropropane	ND		5.0		ug/L			12/05/18 15:32	10
cis-1,3-Dichloropropene	ND		5.0		ug/L			12/05/18 15:32	10
trans-1,3-Dichloropropene	ND		5.0		ug/L			12/05/18 15:32	10
Ethylbenzene	ND		5.0		ug/L			12/05/18 15:32	10
Hexachlorobutadiene	ND		10		ug/L			12/05/18 15:32	10
2-Hexanone	ND		500		ug/L			12/05/18 15:32	10
Isopropylbenzene	ND		5.0		ug/L			12/05/18 15:32	10
4-Isopropyltoluene	ND		10		ug/L			12/05/18 15:32	10
Methylene Chloride	ND		50		ug/L			12/05/18 15:32	10
4-Methyl-2-pentanone (MIBK)	ND		500		ug/L			12/05/18 15:32	10
Naphthalene	ND		10		ug/L			12/05/18 15:32	10
N-Propylbenzene	ND		10		ug/L			12/05/18 15:32	10
Styrene	ND		5.0		ug/L			12/05/18 15:32	10
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			12/05/18 15:32	10

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH11-27-12042018

Lab Sample ID: 720-90102-4

Matrix: Water

Date Collected: 12/04/18 12:40

Date Received: 12/05/18 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			12/05/18 15:32	10
Tetrachloroethene	ND		5.0		ug/L			12/05/18 15:32	10
Toluene	ND		5.0		ug/L			12/05/18 15:32	10
1,2,3-Trichlorobenzene	ND		10		ug/L			12/05/18 15:32	10
1,2,4-Trichlorobenzene	ND		10		ug/L			12/05/18 15:32	10
1,1,1-Trichloroethane	ND		5.0		ug/L			12/05/18 15:32	10
1,1,2-Trichloroethane	ND		5.0		ug/L			12/05/18 15:32	10
Trichloroethene	300		5.0		ug/L			12/05/18 15:32	10
Trichlorofluoromethane	ND		10		ug/L			12/05/18 15:32	10
1,2,3-Trichloropropane	ND		10		ug/L			12/05/18 15:32	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			12/05/18 15:32	10
1,2,4-Trimethylbenzene	ND		5.0		ug/L			12/05/18 15:32	10
1,3,5-Trimethylbenzene	ND		5.0		ug/L			12/05/18 15:32	10
Vinyl acetate	ND		100		ug/L			12/05/18 15:32	10
Vinyl chloride	ND		5.0		ug/L			12/05/18 15:32	10
Xylenes, Total	ND		5.0		ug/L			12/05/18 15:32	10
2,2-Dichloropropane	ND		5.0		ug/L			12/05/18 15:32	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 130					12/05/18 15:32	10
1,2-Dichloroethane-d4 (Surr)	102		72 - 130					12/05/18 15:32	10
Toluene-d8 (Surr)	99		70 - 130					12/05/18 15:32	10

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH11-36-12042018

Date Collected: 12/04/18 03:10

Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/L			12/05/18 15:59	10
Acetone	ND		500		ug/L			12/05/18 15:59	10
Benzene	ND		5.0		ug/L			12/05/18 15:59	10
Dichlorobromomethane	ND		5.0		ug/L			12/05/18 15:59	10
Bromobenzene	ND		10		ug/L			12/05/18 15:59	10
Chlorobromomethane	ND		10		ug/L			12/05/18 15:59	10
Bromoform	ND		10		ug/L			12/05/18 15:59	10
Bromomethane	ND		10		ug/L			12/05/18 15:59	10
2-Butanone (MEK)	ND		500		ug/L			12/05/18 15:59	10
n-Butylbenzene	ND		10		ug/L			12/05/18 15:59	10
sec-Butylbenzene	ND		10		ug/L			12/05/18 15:59	10
tert-Butylbenzene	ND		10		ug/L			12/05/18 15:59	10
Carbon disulfide	ND		50		ug/L			12/05/18 15:59	10
Carbon tetrachloride	ND		5.0		ug/L			12/05/18 15:59	10
Chlorobenzene	ND		5.0		ug/L			12/05/18 15:59	10
Chloroethane	ND		10		ug/L			12/05/18 15:59	10
Chloroform	ND		10		ug/L			12/05/18 15:59	10
Chloromethane	ND		10		ug/L			12/05/18 15:59	10
2-Chlorotoluene	ND		5.0		ug/L			12/05/18 15:59	10
4-Chlorotoluene	ND		5.0		ug/L			12/05/18 15:59	10
Chlorodibromomethane	ND		5.0		ug/L			12/05/18 15:59	10
1,2-Dichlorobenzene	ND		5.0		ug/L			12/05/18 15:59	10
1,3-Dichlorobenzene	ND		5.0		ug/L			12/05/18 15:59	10
1,4-Dichlorobenzene	ND		5.0		ug/L			12/05/18 15:59	10
1,3-Dichloropropane	ND		10		ug/L			12/05/18 15:59	10
1,1-Dichloropropene	ND		5.0		ug/L			12/05/18 15:59	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			12/05/18 15:59	10
Ethylene Dibromide	ND		5.0		ug/L			12/05/18 15:59	10
Dibromomethane	ND		5.0		ug/L			12/05/18 15:59	10
Dichlorodifluoromethane	ND		5.0		ug/L			12/05/18 15:59	10
1,1-Dichloroethane	ND		5.0		ug/L			12/05/18 15:59	10
1,2-Dichloroethane	ND		5.0		ug/L			12/05/18 15:59	10
1,1-Dichloroethene	ND		5.0		ug/L			12/05/18 15:59	10
cis-1,2-Dichloroethene	82		5.0		ug/L			12/05/18 15:59	10
trans-1,2-Dichloroethene	ND		5.0		ug/L			12/05/18 15:59	10
1,2-Dichloropropane	ND		5.0		ug/L			12/05/18 15:59	10
cis-1,3-Dichloropropene	ND		5.0		ug/L			12/05/18 15:59	10
trans-1,3-Dichloropropene	ND		5.0		ug/L			12/05/18 15:59	10
Ethylbenzene	ND		5.0		ug/L			12/05/18 15:59	10
Hexachlorobutadiene	ND		10		ug/L			12/05/18 15:59	10
2-Hexanone	ND		500		ug/L			12/05/18 15:59	10
Isopropylbenzene	ND		5.0		ug/L			12/05/18 15:59	10
4-Isopropyltoluene	ND		10		ug/L			12/05/18 15:59	10
Methylene Chloride	ND		50		ug/L			12/05/18 15:59	10
4-Methyl-2-pentanone (MIBK)	ND		500		ug/L			12/05/18 15:59	10
Naphthalene	ND		10		ug/L			12/05/18 15:59	10
N-Propylbenzene	ND		10		ug/L			12/05/18 15:59	10
Styrene	ND		5.0		ug/L			12/05/18 15:59	10
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			12/05/18 15:59	10

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH11-36-12042018

Lab Sample ID: 720-90102-5

Matrix: Water

Date Collected: 12/04/18 03:10

Date Received: 12/05/18 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			12/05/18 15:59	10
Tetrachloroethene	ND		5.0		ug/L			12/05/18 15:59	10
Toluene	ND		5.0		ug/L			12/05/18 15:59	10
1,2,3-Trichlorobenzene	ND		10		ug/L			12/05/18 15:59	10
1,2,4-Trichlorobenzene	ND		10		ug/L			12/05/18 15:59	10
1,1,1-Trichloroethane	ND		5.0		ug/L			12/05/18 15:59	10
1,1,2-Trichloroethane	ND		5.0		ug/L			12/05/18 15:59	10
Trichloroethene	360		5.0		ug/L			12/05/18 15:59	10
Trichlorofluoromethane	ND		10		ug/L			12/05/18 15:59	10
1,2,3-Trichloropropane	ND		10		ug/L			12/05/18 15:59	10
1,1,2-Trichloro-1,2,2-trifluoroethane	5.5		5.0		ug/L			12/05/18 15:59	10
ne									
1,2,4-Trimethylbenzene	ND		5.0		ug/L			12/05/18 15:59	10
1,3,5-Trimethylbenzene	ND		5.0		ug/L			12/05/18 15:59	10
Vinyl acetate	ND		100		ug/L			12/05/18 15:59	10
Vinyl chloride	ND		5.0		ug/L			12/05/18 15:59	10
Xylenes, Total	ND		5.0		ug/L			12/05/18 15:59	10
2,2-Dichloropropane	ND		5.0		ug/L			12/05/18 15:59	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	96		67 - 130				12/05/18 15:59	10	
1,2-Dichloroethane-d4 (Sur)	103		72 - 130				12/05/18 15:59	10	
Toluene-d8 (Sur)	99		70 - 130				12/05/18 15:59	10	

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-TRIPBLANK-12042018

Date Collected: 12/04/18 09:00

Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			12/05/18 11:00	1
Acetone	ND		50		ug/L			12/05/18 11:00	1
Benzene	ND		0.50		ug/L			12/05/18 11:00	1
Dichlorobromomethane	ND		0.50		ug/L			12/05/18 11:00	1
Bromobenzene	ND		1.0		ug/L			12/05/18 11:00	1
Chlorobromomethane	ND		1.0		ug/L			12/05/18 11:00	1
Bromoform	ND		1.0		ug/L			12/05/18 11:00	1
Bromomethane	ND		1.0		ug/L			12/05/18 11:00	1
2-Butanone (MEK)	ND		50		ug/L			12/05/18 11:00	1
n-Butylbenzene	ND		1.0		ug/L			12/05/18 11:00	1
sec-Butylbenzene	ND		1.0		ug/L			12/05/18 11:00	1
tert-Butylbenzene	ND		1.0		ug/L			12/05/18 11:00	1
Carbon disulfide	ND		5.0		ug/L			12/05/18 11:00	1
Carbon tetrachloride	ND		0.50		ug/L			12/05/18 11:00	1
Chlorobenzene	ND		0.50		ug/L			12/05/18 11:00	1
Chloroethane	ND		1.0		ug/L			12/05/18 11:00	1
Chloroform	ND		1.0		ug/L			12/05/18 11:00	1
Chloromethane	ND		1.0		ug/L			12/05/18 11:00	1
2-Chlorotoluene	ND		0.50		ug/L			12/05/18 11:00	1
4-Chlorotoluene	ND		0.50		ug/L			12/05/18 11:00	1
Chlorodibromomethane	ND		0.50		ug/L			12/05/18 11:00	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/05/18 11:00	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/05/18 11:00	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/05/18 11:00	1
1,3-Dichloropropane	ND		1.0		ug/L			12/05/18 11:00	1
1,1-Dichloropropene	ND		0.50		ug/L			12/05/18 11:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/05/18 11:00	1
Ethylene Dibromide	ND		0.50		ug/L			12/05/18 11:00	1
Dibromomethane	ND		0.50		ug/L			12/05/18 11:00	1
Dichlorodifluoromethane	ND		0.50		ug/L			12/05/18 11:00	1
1,1-Dichloroethane	ND		0.50		ug/L			12/05/18 11:00	1
1,2-Dichloroethane	ND		0.50		ug/L			12/05/18 11:00	1
1,1-Dichloroethene	ND		0.50		ug/L			12/05/18 11:00	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/05/18 11:00	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/05/18 11:00	1
1,2-Dichloropropane	ND		0.50		ug/L			12/05/18 11:00	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/05/18 11:00	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/05/18 11:00	1
Ethylbenzene	ND		0.50		ug/L			12/05/18 11:00	1
Hexachlorobutadiene	ND		1.0		ug/L			12/05/18 11:00	1
2-Hexanone	ND		50		ug/L			12/05/18 11:00	1
Isopropylbenzene	ND		0.50		ug/L			12/05/18 11:00	1
4-Isopropyltoluene	ND		1.0		ug/L			12/05/18 11:00	1
Methylene Chloride	ND		5.0		ug/L			12/05/18 11:00	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			12/05/18 11:00	1
Naphthalene	ND		1.0		ug/L			12/05/18 15:01	1
N-Propylbenzene	ND		1.0		ug/L			12/05/18 11:00	1
Styrene	ND		0.50		ug/L			12/05/18 11:00	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/05/18 11:00	1

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-TRIPBLANK-12042018

Lab Sample ID: 720-90102-6

Matrix: Water

Date Collected: 12/04/18 09:00

Date Received: 12/05/18 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/05/18 11:00	1
Tetrachloroethene	ND		0.50		ug/L			12/05/18 11:00	1
Toluene	ND		0.50		ug/L			12/05/18 11:00	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/05/18 15:01	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/05/18 11:00	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/05/18 11:00	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/05/18 11:00	1
Trichloroethene	ND		0.50		ug/L			12/05/18 11:00	1
Trichlorofluoromethane	ND		1.0		ug/L			12/05/18 11:00	1
1,2,3-Trichloropropane	ND		1.0		ug/L			12/05/18 11:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			12/05/18 11:00	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/05/18 11:00	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/05/18 11:00	1
Vinyl acetate	ND		10		ug/L			12/05/18 11:00	1
Vinyl chloride	ND		0.50		ug/L			12/05/18 11:00	1
Xylenes, Total	ND		0.50		ug/L			12/05/18 11:00	1
2,2-Dichloropropane	ND		0.50		ug/L			12/05/18 11:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 130					12/05/18 11:00	1
4-Bromofluorobenzene	101		67 - 130					12/05/18 15:01	1
1,2-Dichloroethane-d4 (Sur)	102		72 - 130					12/05/18 11:00	1
1,2-Dichloroethane-d4 (Sur)	106		72 - 130					12/05/18 15:01	1
Toluene-d8 (Sur)	101		70 - 130					12/05/18 11:00	1
Toluene-d8 (Sur)	99		70 - 130					12/05/18 15:01	1

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH12-17-12042018

Date Collected: 12/04/18 16:00

Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-7

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0		ug/L			12/05/18 15:29	2
Acetone	ND		100		ug/L			12/05/18 15:29	2
Benzene	ND		1.0		ug/L			12/05/18 15:29	2
Dichlorobromomethane	ND		1.0		ug/L			12/05/18 15:29	2
Bromobenzene	ND		2.0		ug/L			12/05/18 15:29	2
Chlorobromomethane	ND		2.0		ug/L			12/05/18 15:29	2
Bromoform	ND		2.0		ug/L			12/05/18 15:29	2
Bromomethane	ND		2.0		ug/L			12/05/18 15:29	2
2-Butanone (MEK)	ND		100		ug/L			12/05/18 15:29	2
n-Butylbenzene	ND		2.0		ug/L			12/05/18 15:29	2
sec-Butylbenzene	ND		2.0		ug/L			12/05/18 15:29	2
tert-Butylbenzene	ND		2.0		ug/L			12/05/18 15:29	2
Carbon disulfide	ND		10		ug/L			12/05/18 15:29	2
Carbon tetrachloride	ND		1.0		ug/L			12/05/18 15:29	2
Chlorobenzene	ND		1.0		ug/L			12/05/18 15:29	2
Chloroethane	ND		2.0		ug/L			12/05/18 15:29	2
Chloroform	ND		2.0		ug/L			12/05/18 15:29	2
Chloromethane	ND		2.0		ug/L			12/05/18 15:29	2
2-Chlorotoluene	ND		1.0		ug/L			12/05/18 15:29	2
4-Chlorotoluene	ND		1.0		ug/L			12/05/18 15:29	2
Chlorodibromomethane	ND		1.0		ug/L			12/05/18 15:29	2
1,2-Dichlorobenzene	ND		1.0		ug/L			12/05/18 15:29	2
1,3-Dichlorobenzene	ND		1.0		ug/L			12/05/18 15:29	2
1,4-Dichlorobenzene	ND		1.0		ug/L			12/05/18 15:29	2
1,3-Dichloropropane	ND		2.0		ug/L			12/05/18 15:29	2
1,1-Dichloropropene	ND		1.0		ug/L			12/05/18 15:29	2
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/05/18 15:29	2
Ethylene Dibromide	ND		1.0		ug/L			12/05/18 15:29	2
Dibromomethane	ND		1.0		ug/L			12/05/18 15:29	2
Dichlorodifluoromethane	ND		1.0		ug/L			12/05/18 15:29	2
1,1-Dichloroethane	ND		1.0		ug/L			12/05/18 15:29	2
1,2-Dichloroethane	ND		1.0		ug/L			12/05/18 15:29	2
1,1-Dichloroethene	ND		1.0		ug/L			12/05/18 15:29	2
cis-1,2-Dichloroethene	70		1.0		ug/L			12/05/18 15:29	2
trans-1,2-Dichloroethene	1.6		1.0		ug/L			12/05/18 15:29	2
1,2-Dichloropropane	ND		1.0		ug/L			12/05/18 15:29	2
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/05/18 15:29	2
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/05/18 15:29	2
Ethylbenzene	ND		1.0		ug/L			12/05/18 15:29	2
Hexachlorobutadiene	ND		2.0		ug/L			12/05/18 15:29	2
2-Hexanone	ND		100		ug/L			12/05/18 15:29	2
Isopropylbenzene	ND		1.0		ug/L			12/05/18 15:29	2
4-Isopropyltoluene	ND		2.0		ug/L			12/05/18 15:29	2
Methylene Chloride	ND		10		ug/L			12/05/18 15:29	2
4-Methyl-2-pentanone (MIBK)	ND		100		ug/L			12/05/18 15:29	2
Naphthalene	ND		2.0		ug/L			12/05/18 15:29	2
N-Propylbenzene	ND		2.0		ug/L			12/05/18 15:29	2
Styrene	ND		1.0		ug/L			12/05/18 15:29	2
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/05/18 15:29	2

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH12-17-12042018

Lab Sample ID: 720-90102-7

Matrix: Water

Date Collected: 12/04/18 16:00

Date Received: 12/05/18 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/05/18 15:29	2
Tetrachloroethene	ND		1.0		ug/L			12/05/18 15:29	2
Toluene	ND		1.0		ug/L			12/05/18 15:29	2
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/05/18 15:29	2
1,2,4-Trichlorobenzene	ND		2.0		ug/L			12/05/18 15:29	2
1,1,1-Trichloroethane	ND		1.0		ug/L			12/05/18 15:29	2
1,1,2-Trichloroethane	ND		1.0		ug/L			12/05/18 15:29	2
Trichloroethene	55		1.0		ug/L			12/05/18 15:29	2
Trichlorofluoromethane	ND		2.0		ug/L			12/05/18 15:29	2
1,2,3-Trichloropropane	ND		2.0		ug/L			12/05/18 15:29	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			12/05/18 15:29	2
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/05/18 15:29	2
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/05/18 15:29	2
Vinyl acetate	ND		20		ug/L			12/05/18 15:29	2
Vinyl chloride	ND		1.0		ug/L			12/05/18 15:29	2
Xylenes, Total	ND		1.0		ug/L			12/05/18 15:29	2
2,2-Dichloropropane	ND		1.0		ug/L			12/05/18 15:29	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	100		67 - 130				12/05/18 15:29	2	
1,2-Dichloroethane-d4 (Surr)	107		72 - 130				12/05/18 15:29	2	
Toluene-d8 (Surr)	99		70 - 130				12/05/18 15:29	2	

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH12-25-12042018

Date Collected: 12/04/18 15:55

Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-8

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		2.5		ug/L			12/05/18 15:58	5
Acetone	ND		250		ug/L			12/05/18 15:58	5
Benzene	ND		2.5		ug/L			12/05/18 15:58	5
Dichlorobromomethane	ND		2.5		ug/L			12/05/18 15:58	5
Bromobenzene	ND		5.0		ug/L			12/05/18 15:58	5
Chlorobromomethane	ND		5.0		ug/L			12/05/18 15:58	5
Bromoform	ND		5.0		ug/L			12/05/18 15:58	5
Bromomethane	ND		5.0		ug/L			12/05/18 15:58	5
2-Butanone (MEK)	ND		250		ug/L			12/05/18 15:58	5
n-Butylbenzene	ND		5.0		ug/L			12/05/18 15:58	5
sec-Butylbenzene	ND		5.0		ug/L			12/05/18 15:58	5
tert-Butylbenzene	ND		5.0		ug/L			12/05/18 15:58	5
Carbon disulfide	ND		25		ug/L			12/05/18 15:58	5
Carbon tetrachloride	ND		2.5		ug/L			12/05/18 15:58	5
Chlorobenzene	ND		2.5		ug/L			12/05/18 15:58	5
Chloroethane	ND		5.0		ug/L			12/05/18 15:58	5
Chloroform	ND		5.0		ug/L			12/05/18 15:58	5
Chloromethane	ND		5.0		ug/L			12/05/18 15:58	5
2-Chlorotoluene	ND		2.5		ug/L			12/05/18 15:58	5
4-Chlorotoluene	ND		2.5		ug/L			12/05/18 15:58	5
Chlorodibromomethane	ND		2.5		ug/L			12/05/18 15:58	5
1,2-Dichlorobenzene	ND		2.5		ug/L			12/05/18 15:58	5
1,3-Dichlorobenzene	ND		2.5		ug/L			12/05/18 15:58	5
1,4-Dichlorobenzene	ND		2.5		ug/L			12/05/18 15:58	5
1,3-Dichloropropane	ND		5.0		ug/L			12/05/18 15:58	5
1,1-Dichloropropene	ND		2.5		ug/L			12/05/18 15:58	5
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			12/05/18 15:58	5
Ethylene Dibromide	ND		2.5		ug/L			12/05/18 15:58	5
Dibromomethane	ND		2.5		ug/L			12/05/18 15:58	5
Dichlorodifluoromethane	ND		2.5		ug/L			12/05/18 15:58	5
1,1-Dichloroethane	ND		2.5		ug/L			12/05/18 15:58	5
1,2-Dichloroethane	ND		2.5		ug/L			12/05/18 15:58	5
1,1-Dichloroethene	ND		2.5		ug/L			12/05/18 15:58	5
cis-1,2-Dichloroethene	98		2.5		ug/L			12/05/18 15:58	5
trans-1,2-Dichloroethene	ND		2.5		ug/L			12/05/18 15:58	5
1,2-Dichloropropane	ND		2.5		ug/L			12/05/18 15:58	5
cis-1,3-Dichloropropene	ND		2.5		ug/L			12/05/18 15:58	5
trans-1,3-Dichloropropene	ND		2.5		ug/L			12/05/18 15:58	5
Ethylbenzene	ND		2.5		ug/L			12/05/18 15:58	5
Hexachlorobutadiene	ND		5.0		ug/L			12/05/18 15:58	5
2-Hexanone	ND		250		ug/L			12/05/18 15:58	5
Isopropylbenzene	ND		2.5		ug/L			12/05/18 15:58	5
4-Isopropyltoluene	ND		5.0		ug/L			12/05/18 15:58	5
Methylene Chloride	ND		25		ug/L			12/05/18 15:58	5
4-Methyl-2-pentanone (MIBK)	ND		250		ug/L			12/05/18 15:58	5
Naphthalene	ND		5.0		ug/L			12/05/18 15:58	5
N-Propylbenzene	ND		5.0		ug/L			12/05/18 15:58	5
Styrene	ND		2.5		ug/L			12/05/18 15:58	5
1,1,1,2-Tetrachloroethane	ND		2.5		ug/L			12/05/18 15:58	5

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH12-25-12042018

Lab Sample ID: 720-90102-8

Date Collected: 12/04/18 15:55

Matrix: Water

Date Received: 12/05/18 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		2.5		ug/L			12/05/18 15:58	5
Tetrachloroethene	ND		2.5		ug/L			12/05/18 15:58	5
Toluene	ND		2.5		ug/L			12/05/18 15:58	5
1,2,3-Trichlorobenzene	ND		5.0		ug/L			12/05/18 15:58	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			12/05/18 15:58	5
1,1,1-Trichloroethane	ND		2.5		ug/L			12/05/18 15:58	5
1,1,2-Trichloroethane	ND		2.5		ug/L			12/05/18 15:58	5
Trichloroethene	83		2.5		ug/L			12/05/18 15:58	5
Trichlorofluoromethane	ND		5.0		ug/L			12/05/18 15:58	5
1,2,3-Trichloropropane	ND		5.0		ug/L			12/05/18 15:58	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5		ug/L			12/05/18 15:58	5
1,2,4-Trimethylbenzene	ND		2.5		ug/L			12/05/18 15:58	5
1,3,5-Trimethylbenzene	ND		2.5		ug/L			12/05/18 15:58	5
Vinyl acetate	ND		50		ug/L			12/05/18 15:58	5
Vinyl chloride	ND		2.5		ug/L			12/05/18 15:58	5
Xylenes, Total	ND		2.5		ug/L			12/05/18 15:58	5
2,2-Dichloropropane	ND		2.5		ug/L			12/05/18 15:58	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130					12/05/18 15:58	5
1,2-Dichloroethane-d4 (Surr)	104		72 - 130					12/05/18 15:58	5
Toluene-d8 (Surr)	100		70 - 130					12/05/18 15:58	5

TestAmerica Pleasanton

Surrogate Summary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (67-130)	DCA (72-130)	TOL (70-130)
720-90102-1	J6038-BH10-23-12042018	98	102	99
720-90102-2	J6038-BH10-32-12042018	101	104	99
720-90102-3	J6038-BH11-23-12042018	96	102	100
720-90102-4	J6038-BH11-27-12042018	96	102	99
720-90102-5	J6038-BH11-36-12042018	96	103	99
720-90102-6	J6038-TRIPBLANK-12042018	101	102	101
720-90102-6	J6038-TRIPBLANK-12042018	101	106	99
720-90102-7	J6038-BH12-17-12042018	100	107	99
720-90102-8	J6038-BH12-25-12042018	99	104	100
LCS 720-256442/11	Lab Control Sample	102	102	105
LCS 720-256443/9	Lab Control Sample	101	100	100
LCSD 720-256442/12	Lab Control Sample Dup	102	102	103
LCSD 720-256443/10	Lab Control Sample Dup	101	103	100
MB 720-256442/4	Method Blank	99	101	101
MB 720-256443/8	Method Blank	98	103	99

Surrogate Legend

BFB = 4-Bromofluorobenzene

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-256442/4

Matrix: Water

Analysis Batch: 256442

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		ND		0.50		ug/L			12/05/18 09:40	1
Acetone	ND		ND		50		ug/L			12/05/18 09:40	1
Benzene	ND		ND		0.50		ug/L			12/05/18 09:40	1
Dichlorobromomethane	ND		ND		0.50		ug/L			12/05/18 09:40	1
Bromobenzene	ND		ND		1.0		ug/L			12/05/18 09:40	1
Chlorobromomethane	ND		ND		1.0		ug/L			12/05/18 09:40	1
Bromoform	ND		ND		1.0		ug/L			12/05/18 09:40	1
Bromomethane	ND		ND		1.0		ug/L			12/05/18 09:40	1
2-Butanone (MEK)	ND		ND		50		ug/L			12/05/18 09:40	1
n-Butylbenzene	ND		ND		1.0		ug/L			12/05/18 09:40	1
sec-Butylbenzene	ND		ND		1.0		ug/L			12/05/18 09:40	1
tert-Butylbenzene	ND		ND		1.0		ug/L			12/05/18 09:40	1
Carbon disulfide	ND		ND		5.0		ug/L			12/05/18 09:40	1
Carbon tetrachloride	ND		ND		0.50		ug/L			12/05/18 09:40	1
Chlorobenzene	ND		ND		0.50		ug/L			12/05/18 09:40	1
Chloroethane	ND		ND		1.0		ug/L			12/05/18 09:40	1
Chloroform	ND		ND		1.0		ug/L			12/05/18 09:40	1
Chloromethane	ND		ND		1.0		ug/L			12/05/18 09:40	1
2-Chlorotoluene	ND		ND		0.50		ug/L			12/05/18 09:40	1
4-Chlorotoluene	ND		ND		0.50		ug/L			12/05/18 09:40	1
Chlorodibromomethane	ND		ND		0.50		ug/L			12/05/18 09:40	1
1,2-Dichlorobenzene	ND		ND		0.50		ug/L			12/05/18 09:40	1
1,3-Dichlorobenzene	ND		ND		0.50		ug/L			12/05/18 09:40	1
1,4-Dichlorobenzene	ND		ND		0.50		ug/L			12/05/18 09:40	1
1,3-Dichloropropane	ND		ND		1.0		ug/L			12/05/18 09:40	1
1,1-Dichloropropene	ND		ND		0.50		ug/L			12/05/18 09:40	1
1,2-Dibromo-3-Chloropropane	ND		ND		1.0		ug/L			12/05/18 09:40	1
Ethylene Dibromide	ND		ND		0.50		ug/L			12/05/18 09:40	1
Dibromomethane	ND		ND		0.50		ug/L			12/05/18 09:40	1
Dichlorodifluoromethane	ND		ND		0.50		ug/L			12/05/18 09:40	1
1,1-Dichloroethane	ND		ND		0.50		ug/L			12/05/18 09:40	1
1,2-Dichloroethane	ND		ND		0.50		ug/L			12/05/18 09:40	1
1,1-Dichloroethene	ND		ND		0.50		ug/L			12/05/18 09:40	1
cis-1,2-Dichloroethene	ND		ND		0.50		ug/L			12/05/18 09:40	1
trans-1,2-Dichloroethene	ND		ND		0.50		ug/L			12/05/18 09:40	1
1,2-Dichloropropane	ND		ND		0.50		ug/L			12/05/18 09:40	1
cis-1,3-Dichloropropene	ND		ND		0.50		ug/L			12/05/18 09:40	1
trans-1,3-Dichloropropene	ND		ND		0.50		ug/L			12/05/18 09:40	1
Ethylbenzene	ND		ND		0.50		ug/L			12/05/18 09:40	1
Hexachlorobutadiene	ND		ND		1.0		ug/L			12/05/18 09:40	1
2-Hexanone	ND		ND		50		ug/L			12/05/18 09:40	1
Isopropylbenzene	ND		ND		0.50		ug/L			12/05/18 09:40	1
4-Isopropyltoluene	ND		ND		1.0		ug/L			12/05/18 09:40	1
Methylene Chloride	ND		ND		5.0		ug/L			12/05/18 09:40	1
4-Methyl-2-pentanone (MIBK)	ND		ND		50		ug/L			12/05/18 09:40	1
Naphthalene	ND		ND		1.0		ug/L			12/05/18 09:40	1
N-Propylbenzene	ND		ND		1.0		ug/L			12/05/18 09:40	1
Styrene	ND		ND		0.50		ug/L			12/05/18 09:40	1

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-256442/4

Matrix: Water

Analysis Batch: 256442

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/05/18 09:40	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/05/18 09:40	1
Tetrachloroethene	ND		0.50		ug/L			12/05/18 09:40	1
Toluene	ND		0.50		ug/L			12/05/18 09:40	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/05/18 09:40	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/05/18 09:40	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/05/18 09:40	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/05/18 09:40	1
Trichloroethene	ND		0.50		ug/L			12/05/18 09:40	1
Trichlorofluoromethane	ND		1.0		ug/L			12/05/18 09:40	1
1,2,3-Trichloropropane	ND		1.0		ug/L			12/05/18 09:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			12/05/18 09:40	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/05/18 09:40	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/05/18 09:40	1
Vinyl acetate	ND		10		ug/L			12/05/18 09:40	1
Vinyl chloride	ND		0.50		ug/L			12/05/18 09:40	1
Xylenes, Total	ND		0.50		ug/L			12/05/18 09:40	1
2,2-Dichloropropane	ND		0.50		ug/L			12/05/18 09:40	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130		12/05/18 09:40	1
1,2-Dichloroethane-d4 (Sur)	101		72 - 130		12/05/18 09:40	1
Toluene-d8 (Sur)	101		70 - 130		12/05/18 09:40	1

Lab Sample ID: LCS 720-256442/11

Matrix: Water

Analysis Batch: 256442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	25.6		ug/L		103	70 - 130
Acetone	125	125		ug/L		100	61 - 147
Benzene	25.0	24.1		ug/L		96	79 - 119
Dichlorobromomethane	25.0	25.6		ug/L		103	81 - 130
Bromobenzene	25.0	25.0		ug/L		100	77 - 117
Chlorobromomethane	25.0	24.6		ug/L		99	81 - 122
Bromoform	25.0	25.0		ug/L		100	75 - 127
Bromomethane	25.0	25.9		ug/L		104	70 - 132
2-Butanone (MEK)	125	126		ug/L		101	66 - 133
n-Butylbenzene	25.0	26.4		ug/L		106	78 - 119
sec-Butylbenzene	25.0	26.0		ug/L		104	78 - 118
tert-Butylbenzene	25.0	25.7		ug/L		103	78 - 118
Carbon disulfide	25.0	19.8		ug/L		79	64 - 127
Carbon tetrachloride	25.0	25.1		ug/L		100	72 - 142
Chlorobenzene	25.0	24.6		ug/L		99	76 - 116
Chloroethane	25.0	25.2		ug/L		101	70 - 131
Chloroform	25.0	24.8		ug/L		99	82 - 119
Chloromethane	25.0	24.8		ug/L		99	49 - 134
2-Chlorotoluene	25.0	25.2		ug/L		101	75 - 115

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-256442/11

Matrix: Water

Analysis Batch: 256442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	25.0	25.4		ug/L		101	73 - 119
Chlorodibromomethane	25.0	26.9		ug/L		108	77 - 133
1,2-Dichlorobenzene	25.0	24.9		ug/L		100	77 - 117
1,3-Dichlorobenzene	25.0	24.9		ug/L		100	76 - 116
1,4-Dichlorobenzene	25.0	25.0		ug/L		100	76 - 116
1,3-Dichloropropane	25.0	25.3		ug/L		101	77 - 117
1,1-Dichloropropene	25.0	24.5		ug/L		98	83 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.2		ug/L		97	74 - 126
Ethylene Dibromide	25.0	25.4		ug/L		102	80 - 121
Dibromomethane	25.0	24.7		ug/L		99	79 - 117
Dichlorodifluoromethane	25.0	24.8		ug/L		99	21 - 150
1,1-Dichloroethane	25.0	24.5		ug/L		98	77 - 119
1,2-Dichloroethane	25.0	24.7		ug/L		99	73 - 122
1,1-Dichloroethene	25.0	22.1		ug/L		89	69 - 119
cis-1,2-Dichloroethene	25.0	24.4		ug/L		97	77 - 117
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	79 - 117
1,2-Dichloropropane	25.0	25.8		ug/L		103	79 - 119
cis-1,3-Dichloropropene	25.0	27.8		ug/L		111	82 - 119
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	76 - 122
Ethylbenzene	25.0	24.8		ug/L		99	77 - 117
Hexachlorobutadiene	25.0	25.7		ug/L		103	78 - 140
2-Hexanone	125	128		ug/L		102	63 - 140
Isopropylbenzene	25.0	26.0		ug/L		104	77 - 130
4-Isopropyltoluene	25.0	26.1		ug/L		105	80 - 120
Methylene Chloride	25.0	22.7		ug/L		91	75 - 117
4-Methyl-2-pentanone (MIBK)	125	124		ug/L		99	66 - 140
Naphthalene	25.0	23.8		ug/L		95	81 - 121
N-Propylbenzene	25.0	25.9		ug/L		103	77 - 117
Styrene	25.0	26.0		ug/L		104	76 - 116
1,1,1,2-Tetrachloroethane	25.0	25.6		ug/L		102	81 - 121
1,1,2,2-Tetrachloroethane	25.0	24.8		ug/L		99	70 - 115
Tetrachloroethene	25.0	25.6		ug/L		102	81 - 130
Toluene	25.0	24.5		ug/L		98	75 - 120
1,2,3-Trichlorobenzene	25.0	25.2		ug/L		101	87 - 123
1,2,4-Trichlorobenzene	25.0	25.7		ug/L		103	78 - 120
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	74 - 130
1,1,2-Trichloroethane	25.0	26.0		ug/L		104	80 - 117
Trichloroethene	25.0	25.0		ug/L		100	80 - 123
Trichlorofluoromethane	25.0	25.6		ug/L		103	75 - 141
1,2,3-Trichloropropane	25.0	24.2		ug/L		97	77 - 120
1,1,2-Trichloro-1,2,2-trifluoroetha ne	25.0	23.4		ug/L		94	70 - 133
1,2,4-Trimethylbenzene	25.0	25.8		ug/L		103	75 - 115
1,3,5-Trimethylbenzene	25.0	26.1		ug/L		104	77 - 117
Vinyl acetate	25.0	25.3		ug/L		101	50 - 126
Vinyl chloride	25.0	25.1		ug/L		100	58 - 138
m-Xylene & p-Xylene	25.0	24.9		ug/L		99	74 - 119
o-Xylene	25.0	25.2		ug/L		101	77 - 118

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-256442/11

Matrix: Water

Analysis Batch: 256442

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
2,2-Dichloropropane	25.0	26.0		ug/L		104	74 - 156
Surrogate							
4-Bromofluorobenzene	102		67 - 130				
1,2-Dichloroethane-d4 (Sur)	102		72 - 130				
Toluene-d8 (Sur)	105		70 - 130				

Lab Sample ID: LCSD 720-256442/12

Matrix: Water

Analysis Batch: 256442

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Added	Result	Qualifier						
Methyl tert-butyl ether	25.0	25.3		ug/L		101	70 - 130	1	20
Acetone	125	118		ug/L		95	61 - 147	5	30
Benzene	25.0	24.0		ug/L		96	79 - 119	1	20
Dichlorobromomethane	25.0	25.6		ug/L		102	81 - 130	0	20
Bromobenzene	25.0	25.6		ug/L		102	77 - 117	3	20
Chlorobromomethane	25.0	24.6		ug/L		98	81 - 122	0	20
Bromoform	25.0	25.8		ug/L		103	75 - 127	3	20
Bromomethane	25.0	25.2		ug/L		101	70 - 132	3	20
2-Butanone (MEK)	125	122		ug/L		98	66 - 133	3	22
n-Butylbenzene	25.0	27.0		ug/L		108	78 - 119	2	20
sec-Butylbenzene	25.0	26.9		ug/L		108	78 - 118	3	20
tert-Butylbenzene	25.0	26.8		ug/L		107	78 - 118	4	20
Carbon disulfide	25.0	19.9		ug/L		79	64 - 127	0	20
Carbon tetrachloride	25.0	25.1		ug/L		100	72 - 142	0	20
Chlorobenzene	25.0	25.4		ug/L		102	76 - 116	3	20
Chloroethane	25.0	25.0		ug/L		100	70 - 131	1	20
Chloroform	25.0	24.8		ug/L		99	82 - 119	0	20
Chloromethane	25.0	24.3		ug/L		97	49 - 134	2	20
2-Chlorotoluene	25.0	26.1		ug/L		104	75 - 115	3	20
4-Chlorotoluene	25.0	26.2		ug/L		105	73 - 119	3	20
Chlorodibromomethane	25.0	26.7		ug/L		107	77 - 133	1	20
1,2-Dichlorobenzene	25.0	25.7		ug/L		103	77 - 117	3	20
1,3-Dichlorobenzene	25.0	25.4		ug/L		102	76 - 116	2	20
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	76 - 116	3	20
1,3-Dichloropropane	25.0	25.0		ug/L		100	77 - 117	1	20
1,1-Dichloropropene	25.0	24.4		ug/L		98	83 - 130	1	20
1,2-Dibromo-3-Chloropropane	25.0	25.3		ug/L		101	74 - 126	4	20
Ethylene Dibromide	25.0	25.2		ug/L		101	80 - 121	1	20
Dibromomethane	25.0	24.6		ug/L		98	79 - 117	0	20
Dichlorodifluoromethane	25.0	24.1		ug/L		96	21 - 150	3	20
1,1-Dichloroethane	25.0	24.3		ug/L		97	77 - 119	1	20
1,2-Dichloroethane	25.0	24.3		ug/L		97	73 - 122	2	20
1,1-Dichloroethene	25.0	22.1		ug/L		88	69 - 119	0	20
cis-1,2-Dichloroethene	25.0	24.5		ug/L		98	77 - 117	0	20
trans-1,2-Dichloroethene	25.0	24.1		ug/L		96	79 - 117	1	20
1,2-Dichloropropane	25.0	25.6		ug/L		102	79 - 119	1	20

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-256442/12

Matrix: Water

Analysis Batch: 256442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	25.0	27.6		ug/L		111	82 - 119	0	20
trans-1,3-Dichloropropene	25.0	26.0		ug/L		104	76 - 122	2	20
Ethylbenzene	25.0	25.5		ug/L		102	77 - 117	3	20
Hexachlorobutadiene	25.0	26.5		ug/L		106	78 - 140	3	20
2-Hexanone	125	123		ug/L		99	63 - 140	4	24
Isopropylbenzene	25.0	27.0		ug/L		108	77 - 130	4	20
4-Isopropyltoluene	25.0	26.9		ug/L		107	80 - 120	3	20
Methylene Chloride	25.0	22.8		ug/L		91	75 - 117	0	20
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	66 - 140	2	21
Naphthalene	25.0	25.1		ug/L		100	81 - 121	5	20
N-Propylbenzene	25.0	26.9		ug/L		108	77 - 117	4	20
Styrene	25.0	26.8		ug/L		107	76 - 116	3	20
1,1,1,2-Tetrachloroethane	25.0	26.7		ug/L		107	81 - 121	4	20
1,1,2,2-Tetrachloroethane	25.0	25.6		ug/L		102	70 - 115	3	20
Tetrachloroethene	25.0	25.3		ug/L		101	81 - 130	1	20
Toluene	25.0	25.3		ug/L		101	75 - 120	3	20
1,2,3-Trichlorobenzene	25.0	26.6		ug/L		106	87 - 123	5	20
1,2,4-Trichlorobenzene	25.0	26.7		ug/L		107	78 - 120	4	20
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	74 - 130	0	20
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	80 - 117	2	20
Trichloroethene	25.0	25.0		ug/L		100	80 - 123	0	20
Trichlorofluoromethane	25.0	25.3		ug/L		101	75 - 141	1	20
1,2,3-Trichloropropane	25.0	25.3		ug/L		101	77 - 120	4	20
1,1,2-Trichloro-1,2,2-trifluoroetha ne	25.0	23.0		ug/L		92	70 - 133	2	20
1,2,4-Trimethylbenzene	25.0	26.7		ug/L		107	75 - 115	3	20
1,3,5-Trimethylbenzene	25.0	27.0		ug/L		108	77 - 117	3	20
Vinyl acetate	25.0	25.2		ug/L		101	50 - 126	0	20
Vinyl chloride	25.0	24.7		ug/L		99	58 - 138	2	20
m-Xylene & p-Xylene	25.0	25.5		ug/L		102	74 - 119	3	20
o-Xylene	25.0	26.2		ug/L		105	77 - 118	4	20
2,2-Dichloropropane	25.0	27.0		ug/L		108	74 - 156	4	20

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Sur)	102		72 - 130
Toluene-d8 (Sur)	103		70 - 130

Lab Sample ID: MB 720-256443/8

Matrix: Water

Analysis Batch: 256443

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			12/05/18 09:28	1
Acetone	ND		50		ug/L			12/05/18 09:28	1
Benzene	ND		0.50		ug/L			12/05/18 09:28	1
Dichlorobromomethane	ND		0.50		ug/L			12/05/18 09:28	1
Bromobenzene	ND		1.0		ug/L			12/05/18 09:28	1

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-256443/8

Matrix: Water

Analysis Batch: 256443

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	ND		1.0		ug/L			12/05/18 09:28	1
Bromoform	ND		1.0		ug/L			12/05/18 09:28	1
Bromomethane	ND		1.0		ug/L			12/05/18 09:28	1
2-Butanone (MEK)	ND		50		ug/L			12/05/18 09:28	1
n-Butylbenzene	ND		1.0		ug/L			12/05/18 09:28	1
sec-Butylbenzene	ND		1.0		ug/L			12/05/18 09:28	1
tert-Butylbenzene	ND		1.0		ug/L			12/05/18 09:28	1
Carbon disulfide	ND		5.0		ug/L			12/05/18 09:28	1
Carbon tetrachloride	ND		0.50		ug/L			12/05/18 09:28	1
Chlorobenzene	ND		0.50		ug/L			12/05/18 09:28	1
Chloroethane	ND		1.0		ug/L			12/05/18 09:28	1
Chloroform	ND		1.0		ug/L			12/05/18 09:28	1
Chloromethane	ND		1.0		ug/L			12/05/18 09:28	1
2-Chlorotoluene	ND		0.50		ug/L			12/05/18 09:28	1
4-Chlorotoluene	ND		0.50		ug/L			12/05/18 09:28	1
Chlorodibromomethane	ND		0.50		ug/L			12/05/18 09:28	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/05/18 09:28	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/05/18 09:28	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/05/18 09:28	1
1,3-Dichloropropane	ND		1.0		ug/L			12/05/18 09:28	1
1,1-Dichloropropene	ND		0.50		ug/L			12/05/18 09:28	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/05/18 09:28	1
Ethylene Dibromide	ND		0.50		ug/L			12/05/18 09:28	1
Dibromomethane	ND		0.50		ug/L			12/05/18 09:28	1
Dichlorodifluoromethane	ND		0.50		ug/L			12/05/18 09:28	1
1,1-Dichloroethane	ND		0.50		ug/L			12/05/18 09:28	1
1,2-Dichloroethane	ND		0.50		ug/L			12/05/18 09:28	1
1,1-Dichloroethene	ND		0.50		ug/L			12/05/18 09:28	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/05/18 09:28	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/05/18 09:28	1
1,2-Dichloropropane	ND		0.50		ug/L			12/05/18 09:28	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/05/18 09:28	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/05/18 09:28	1
Ethylbenzene	ND		0.50		ug/L			12/05/18 09:28	1
Hexachlorobutadiene	ND		1.0		ug/L			12/05/18 09:28	1
2-Hexanone	ND		50		ug/L			12/05/18 09:28	1
Isopropylbenzene	ND		0.50		ug/L			12/05/18 09:28	1
4-Isopropyltoluene	ND		1.0		ug/L			12/05/18 09:28	1
Methylene Chloride	ND		5.0		ug/L			12/05/18 09:28	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			12/05/18 09:28	1
Naphthalene	ND		1.0		ug/L			12/05/18 09:28	1
N-Propylbenzene	ND		1.0		ug/L			12/05/18 09:28	1
Styrene	ND		0.50		ug/L			12/05/18 09:28	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/05/18 09:28	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/05/18 09:28	1
Tetrachloroethene	ND		0.50		ug/L			12/05/18 09:28	1
Toluene	ND		0.50		ug/L			12/05/18 09:28	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/05/18 09:28	1

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-256443/8

Matrix: Water

Analysis Batch: 256443

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND				1.0		ug/L			12/05/18 09:28	1
1,1,1-Trichloroethane	ND				0.50		ug/L			12/05/18 09:28	1
1,1,2-Trichloroethane	ND				0.50		ug/L			12/05/18 09:28	1
Trichloroethene	ND				0.50		ug/L			12/05/18 09:28	1
Trichlorofluoromethane	ND				1.0		ug/L			12/05/18 09:28	1
1,2,3-Trichloropropane	ND				1.0		ug/L			12/05/18 09:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				0.50		ug/L			12/05/18 09:28	1
1,2,4-Trimethylbenzene	ND				0.50		ug/L			12/05/18 09:28	1
1,3,5-Trimethylbenzene	ND				0.50		ug/L			12/05/18 09:28	1
Vinyl acetate	ND				10		ug/L			12/05/18 09:28	1
Vinyl chloride	ND				0.50		ug/L			12/05/18 09:28	1
Xylenes, Total	ND				0.50		ug/L			12/05/18 09:28	1
2,2-Dichloropropane	ND				0.50		ug/L			12/05/18 09:28	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	98		98		67 - 130				12/05/18 09:28	1	
1,2-Dichloroethane-d4 (Sur)	103				72 - 130				12/05/18 09:28	1	
Toluene-d8 (Sur)	99				70 - 130				12/05/18 09:28	1	

Lab Sample ID: LCS 720-256443/9

Matrix: Water

Analysis Batch: 256443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Methyl tert-butyl ether	25.0	24.6		ug/L		98	70 - 130
Acetone	125	130		ug/L		104	61 - 147
Benzene	25.0	24.1		ug/L		97	79 - 119
Dichlorobromomethane	25.0	26.2		ug/L		105	81 - 130
Bromobenzene	25.0	24.8		ug/L		99	77 - 117
Chlorobromomethane	25.0	24.6		ug/L		98	81 - 122
Bromoform	25.0	25.7		ug/L		103	75 - 127
Bromomethane	25.0	26.3		ug/L		105	70 - 132
2-Butanone (MEK)	125	122		ug/L		98	66 - 133
n-Butylbenzene	25.0	26.4		ug/L		106	78 - 119
sec-Butylbenzene	25.0	25.6		ug/L		102	78 - 118
tert-Butylbenzene	25.0	25.3		ug/L		101	78 - 118
Carbon disulfide	25.0	20.0		ug/L		80	64 - 127
Carbon tetrachloride	25.0	25.0		ug/L		100	72 - 142
Chlorobenzene	25.0	25.5		ug/L		102	76 - 116
Chloroethane	25.0	26.7		ug/L		107	70 - 131
Chloroform	25.0	25.4		ug/L		102	82 - 119
Chloromethane	25.0	26.0		ug/L		104	49 - 134
2-Chlorotoluene	25.0	25.1		ug/L		101	75 - 115
4-Chlorotoluene	25.0	25.5		ug/L		102	73 - 119
Chlorodibromomethane	25.0	26.9		ug/L		108	77 - 133
1,2-Dichlorobenzene	25.0	26.5		ug/L		106	77 - 117
1,3-Dichlorobenzene	25.0	26.4		ug/L		106	76 - 116
1,4-Dichlorobenzene	25.0	26.3		ug/L		105	76 - 116

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-256443/9

Matrix: Water

Analysis Batch: 256443

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	25.0	24.9		ug/L		100	77 - 117
1,1-Dichloropropene	25.0	24.7		ug/L		99	83 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.0		ug/L		96	74 - 126
Ethylene Dibromide	25.0	25.8		ug/L		103	80 - 121
Dibromomethane	25.0	24.9		ug/L		100	79 - 117
Dichlorodifluoromethane	25.0	25.6		ug/L		102	21 - 150
1,1-Dichloroethane	25.0	24.8		ug/L		99	77 - 119
1,2-Dichloroethane	25.0	25.3		ug/L		101	73 - 122
1,1-Dichloroethene	25.0	22.7		ug/L		91	69 - 119
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	77 - 117
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	79 - 117
1,2-Dichloropropane	25.0	26.0		ug/L		104	79 - 119
cis-1,3-Dichloropropene	25.0	27.3		ug/L		109	82 - 119
trans-1,3-Dichloropropene	25.0	25.8		ug/L		103	76 - 122
Ethylbenzene	25.0	25.2		ug/L		101	77 - 117
Hexachlorobutadiene	25.0	26.3		ug/L		105	78 - 140
2-Hexanone	125	129		ug/L		103	63 - 140
Isopropylbenzene	25.0	26.2		ug/L		105	77 - 130
4-Isopropyltoluene	25.0	26.4		ug/L		106	80 - 120
Methylene Chloride	25.0	22.2		ug/L		89	75 - 117
4-Methyl-2-pentanone (MIBK)	125	128		ug/L		102	66 - 140
Naphthalene	25.0	24.9		ug/L		100	81 - 121
N-Propylbenzene	25.0	25.4		ug/L		102	77 - 117
Styrene	25.0	25.0		ug/L		100	76 - 116
1,1,1,2-Tetrachloroethane	25.0	26.4		ug/L		106	81 - 121
1,1,2,2-Tetrachloroethane	25.0	25.1		ug/L		101	70 - 115
Tetrachloroethene	25.0	25.6		ug/L		102	81 - 130
Toluene	25.0	24.3		ug/L		97	75 - 120
1,2,3-Trichlorobenzene	25.0	26.0		ug/L		104	87 - 123
1,2,4-Trichlorobenzene	25.0	26.8		ug/L		107	78 - 120
1,1,1-Trichloroethane	25.0	25.2		ug/L		101	74 - 130
1,1,2-Trichloroethane	25.0	26.2		ug/L		105	80 - 117
Trichloroethene	25.0	25.2		ug/L		101	80 - 123
Trichlorofluoromethane	25.0	26.5		ug/L		106	75 - 141
1,2,3-Trichloropropane	25.0	24.1		ug/L		97	77 - 120
1,1,2-Trichloro-1,2,2-trifluoroetha ne	25.0	23.5		ug/L		94	70 - 133
1,2,4-Trimethylbenzene	25.0	25.5		ug/L		102	75 - 115
1,3,5-Trimethylbenzene	25.0	25.3		ug/L		101	77 - 117
Vinyl acetate	25.0	24.3		ug/L		97	50 - 126
Vinyl chloride	25.0	27.4		ug/L		110	58 - 138
m-Xylene & p-Xylene	25.0	25.1		ug/L		101	74 - 119
o-Xylene	25.0	25.7		ug/L		103	77 - 118
2,2-Dichloropropane	25.0	24.2		ug/L		97	74 - 156

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Sur)	100		72 - 130

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-256443/9

Matrix: Water

Analysis Batch: 256443

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
Toluene-d8 (Sur)			100		70 - 130

Lab Sample ID: LCSD 720-256443/10

Matrix: Water

Analysis Batch: 256443

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Methyl tert-butyl ether	25.0	26.4		ug/L		106	70 - 130	7	20
Acetone	125	141		ug/L		113	61 - 147	8	30
Benzene	25.0	24.1		ug/L		96	79 - 119	0	20
Dichlorobromomethane	25.0	26.5		ug/L		106	81 - 130	1	20
Bromobenzene	25.0	25.1		ug/L		100	77 - 117	1	20
Chlorobromomethane	25.0	25.1		ug/L		101	81 - 122	2	20
Bromoform	25.0	26.7		ug/L		107	75 - 127	4	20
Bromomethane	25.0	26.4		ug/L		106	70 - 132	1	20
2-Butanone (MEK)	125	133		ug/L		106	66 - 133	8	22
n-Butylbenzene	25.0	26.0		ug/L		104	78 - 119	2	20
sec-Butylbenzene	25.0	25.6		ug/L		102	78 - 118	0	20
tert-Butylbenzene	25.0	25.1		ug/L		100	78 - 118	1	20
Carbon disulfide	25.0	20.1		ug/L		81	64 - 127	1	20
Carbon tetrachloride	25.0	25.4		ug/L		101	72 - 142	1	20
Chlorobenzene	25.0	25.7		ug/L		103	76 - 116	1	20
Chloroethane	25.0	26.8		ug/L		107	70 - 131	0	20
Chloroform	25.0	26.0		ug/L		104	82 - 119	2	20
Chloromethane	25.0	26.3		ug/L		105	49 - 134	1	20
2-Chlorotoluene	25.0	25.0		ug/L		100	75 - 115	1	20
4-Chlorotoluene	25.0	25.5		ug/L		102	73 - 119	0	20
Chlorodibromomethane	25.0	27.8		ug/L		111	77 - 133	3	20
1,2-Dichlorobenzene	25.0	26.2		ug/L		105	77 - 117	1	20
1,3-Dichlorobenzene	25.0	26.2		ug/L		105	76 - 116	1	20
1,4-Dichlorobenzene	25.0	26.3		ug/L		105	76 - 116	0	20
1,3-Dichloropropane	25.0	25.9		ug/L		104	77 - 117	4	20
1,1-Dichloropropene	25.0	24.8		ug/L		99	83 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	24.6		ug/L		98	74 - 126	2	20
Ethylene Dibromide	25.0	26.7		ug/L		107	80 - 121	4	20
Dibromomethane	25.0	25.5		ug/L		102	79 - 117	2	20
Dichlorodifluoromethane	25.0	25.8		ug/L		103	21 - 150	1	20
1,1-Dichloroethane	25.0	25.3		ug/L		101	77 - 119	2	20
1,2-Dichloroethane	25.0	25.7		ug/L		103	73 - 122	2	20
1,1-Dichloroethene	25.0	23.0		ug/L		92	69 - 119	1	20
cis-1,2-Dichloroethene	25.0	25.8		ug/L		103	77 - 117	2	20
trans-1,2-Dichloroethene	25.0	25.6		ug/L		102	79 - 117	3	20
1,2-Dichloropropane	25.0	26.2		ug/L		105	79 - 119	1	20
cis-1,3-Dichloropropene	25.0	27.6		ug/L		110	82 - 119	1	20
trans-1,3-Dichloropropene	25.0	26.6		ug/L		106	76 - 122	3	20
Ethylbenzene	25.0	25.2		ug/L		101	77 - 117	0	20
Hexachlorobutadiene	25.0	25.7		ug/L		103	78 - 140	2	20
2-Hexanone	125	142		ug/L		113	63 - 140	10	24

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-256443/10

Matrix: Water

Analysis Batch: 256443

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Isopropylbenzene	25.0	26.4		ug/L		105	77 - 130	1	20
4-Isopropyltoluene	25.0	26.3		ug/L		105	80 - 120	0	20
Methylene Chloride	25.0	22.6		ug/L		90	75 - 117	2	20
4-Methyl-2-pentanone (MIBK)	125	141		ug/L		113	66 - 140	10	21
Naphthalene	25.0	25.7		ug/L		103	81 - 121	3	20
N-Propylbenzene	25.0	25.4		ug/L		102	77 - 117	0	20
Styrene	25.0	25.1		ug/L		100	76 - 116	0	20
1,1,1,2-Tetrachloroethane	25.0	26.3		ug/L		105	81 - 121	0	20
1,1,2,2-Tetrachloroethane	25.0	26.1		ug/L		104	70 - 115	4	20
Tetrachloroethene	25.0	25.7		ug/L		103	81 - 130	0	20
Toluene	25.0	24.2		ug/L		97	75 - 120	0	20
1,2,3-Trichlorobenzene	25.0	26.2		ug/L		105	87 - 123	1	20
1,2,4-Trichlorobenzene	25.0	26.6		ug/L		106	78 - 120	1	20
1,1,1-Trichloroethane	25.0	25.7		ug/L		103	74 - 130	2	20
1,1,2-Trichloroethane	25.0	27.2		ug/L		109	80 - 117	4	20
Trichloroethene	25.0	25.0		ug/L		100	80 - 123	1	20
Trichlorofluoromethane	25.0	26.8		ug/L		107	75 - 141	1	20
1,2,3-Trichloropropane	25.0	25.3		ug/L		101	77 - 120	5	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.3		ug/L		93	70 - 133	1	20
1,2,4-Trimethylbenzene	25.0	25.5		ug/L		102	75 - 115	0	20
1,3,5-Trimethylbenzene	25.0	25.3		ug/L		101	77 - 117	0	20
Vinyl acetate	25.0	25.5		ug/L		102	50 - 126	5	20
Vinyl chloride	25.0	27.9		ug/L		112	58 - 138	2	20
m-Xylene & p-Xylene	25.0	25.2		ug/L		101	74 - 119	0	20
o-Xylene	25.0	25.7		ug/L		103	77 - 118	0	20
2,2-Dichloropropane	25.0	27.0		ug/L		108	74 - 156	11	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Sur)	103		72 - 130
Toluene-d8 (Sur)	100		70 - 130

TestAmerica Pleasanton

QC Association Summary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

GC/MS VOA

Analysis Batch: 256442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-90102-1	J6038-BH10-23-12042018	Total/NA	Water	8260B	
720-90102-3	J6038-BH11-23-12042018	Total/NA	Water	8260B	
720-90102-4	J6038-BH11-27-12042018	Total/NA	Water	8260B	
720-90102-5	J6038-BH11-36-12042018	Total/NA	Water	8260B	
720-90102-6	J6038-TRIPBLANK-12042018	Total/NA	Water	8260B	
MB 720-256442/4	Method Blank	Total/NA	Water	8260B	
LCS 720-256442/11	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-256442/12	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 256443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-90102-2	J6038-BH10-32-12042018	Total/NA	Water	8260B	
720-90102-6	J6038-TRIPBLANK-12042018	Total/NA	Water	8260B	
720-90102-7	J6038-BH12-17-12042018	Total/NA	Water	8260B	
720-90102-8	J6038-BH12-25-12042018	Total/NA	Water	8260B	
MB 720-256443/8	Method Blank	Total/NA	Water	8260B	
LCS 720-256443/9	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-256443/10	Lab Control Sample Dup	Total/NA	Water	8260B	

TestAmerica Pleasanton

Lab Chronicle

Client: AECOM
Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH10-23-12042018

Date Collected: 12/04/18 11:40
Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	256442	12/05/18 14:39	AJS	TAL PLS

Client Sample ID: J6038-BH10-32-12042018

Date Collected: 12/04/18 11:50
Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	256443	12/05/18 14:29	JRM	TAL PLS

Client Sample ID: J6038-BH11-23-12042018

Date Collected: 12/04/18 12:30
Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	256442	12/05/18 15:06	AJS	TAL PLS

Client Sample ID: J6038-BH11-27-12042018

Date Collected: 12/04/18 12:40
Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	256442	12/05/18 15:32	AJS	TAL PLS

Client Sample ID: J6038-BH11-36-12042018

Date Collected: 12/04/18 03:10
Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	256442	12/05/18 15:59	AJS	TAL PLS

Client Sample ID: J6038-TRIPBLANK-12042018

Date Collected: 12/04/18 09:00
Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	256443	12/05/18 15:01	JRM	TAL PLS
Total/NA	Analysis	8260B		1	256442	12/05/18 11:00	AJS	TAL PLS

TestAmerica Pleasanton

Lab Chronicle

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Client Sample ID: J6038-BH12-17-12042018

Date Collected: 12/04/18 16:00

Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	256443	12/05/18 15:29	JRM	TAL PLS

Client Sample ID: J6038-BH12-25-12042018

Date Collected: 12/04/18 18:55

Date Received: 12/05/18 08:00

Lab Sample ID: 720-90102-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	256443	12/05/18 15:58	JRM	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TestAmerica Pleasanton

Accreditation/Certification Summary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Laboratory: TestAmerica Pleasanton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-20
USDA	Federal		P330-17-00380	12-11-20

TestAmerica Pleasanton

Method Summary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PLS
5030B	Purge and Trap	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TestAmerica Pleasanton

Sample Summary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90102-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-90102-1	J6038-BH10-23-12042018	Water	12/04/18 11:40	12/05/18 08:00
720-90102-2	J6038-BH10-32-12042018	Water	12/04/18 11:50	12/05/18 08:00
720-90102-3	J6038-BH11-23-12042018	Water	12/04/18 12:30	12/05/18 08:00
720-90102-4	J6038-BH11-27-12042018	Water	12/04/18 12:40	12/05/18 08:00
720-90102-5	J6038-BH11-36-12042018	Water	12/04/18 03:10	12/05/18 08:00
720-90102-6	J6038-TRIPBLANK-12042018	Water	12/04/18 09:00	12/05/18 08:00
720-90102-7	J6038-BH12-17-12042018	Water	12/04/18 16:00	12/05/18 08:00
720-90102-8	J6038-BH12-25-12042018	Water	12/04/18 15:55	12/05/18 08:00

TestAmerica Pleasanton

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasonton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone (925) 419-8419 Fax: (925) 600-3002

Reference #: 187111

12/5/2018

Report To

Attn: Holly Holbrook

Company: AECOM

Address: 999 W. Town & Country Rd, Orange, CA 92666

Email: Holly.Holbrook@AECOM.com

Bill To: NG

Sampled By:
Ben Leebner

Attn:

Phone

Sample ID Date Time Mat Preserv

J6038-BH10-23-12418	12/4/18	1140	W	HCl	X
J6038-BH10-32-12418	12/4/18	1150	W	HCl	X
J6038-BH11-23-12418	12/4/18	1230	W	HCl	X
J6038-BH11-24-12418	12/4/18	1240	W	HCl	X
J6038-BH11-34-12418	12/4/18	1310	W	HCl	X
J6038-BH12-17-12418	12/4/18	1600	W	HCl	X
J6038-BH12-25-12418	12/4/18	1535	W	HCl	X

Volatile Organics GC/MS (VOCs)
EPA 8260B

HVOCS by EPA 8260B

EPA 8260B Gas BTEX
 5 Oxygenates DCA, EDB Ethanol
TEPH EPA 8015B Silica Gel
 Diesel Motor Oil Other

SemiVolatile Organics GC/MS
EPA 8270C

PNA/PAHs by 8270C
 8270C SIM

Oil and Grease Petroleum
(EPA 1664/9071) Total

Pesticides EPA 8081
PCBs EPA 8082

CAM17 Metals
(EPA 6010/7470/7471)

Metals: 6010B 200.7
 Lead LUFT RCRA Other:

Metals: 6020 200.8
(ICP-MS):

W.E.T (STLC)
 W.E.T (DI) TCLP

Hex. Chrom by EPA 7196
 or EPA 7199

pH 9040
 SM4500

Spec. Cond. Alkalinity
 TSS SS TDS

Anions Cl SO₄ NO₃ F
 Br NO₂ PO₄

Perchlorate by EPA 314.0

COD EPA 410.4 SM5220D
 Turbidity

Number of Containers

Analysis Request

Date

Page

of

Project Info.	Sample Receipt		1) Relinquished by:		2) Relinquished by:		3) Relinquished by:				
Project Name/ #:	# of Containers:	Signature	Printed Name	Time	Signature	Printed Name	Time	Signature	Printed Name	Date	
		Ben Leebner	12/5/18								
PO#:	Temp:										
Credit Card Y/N:	If yes, please call with payment information ASAP										
T A	10 Day	5 Day	4 Day	3 Day	2 Day	1 Day	Other:				
1) Received by: <u>Ben Leebner</u> 8/07											
Signature		Time		Signature		Time		Signature		Time	
<u>Ben Leebner</u>		12-5-18									
2) Received by:											
Signature		Time		Signature		Time		Signature		Time	
3) Received by:											
Signature		Time		Signature		Time		Signature		Time	

Report: Routine Level 3 Level 4 EDD EDF
Special Instructions / Comments: Global ID _____

See Terms and Conditions on reverse

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA Pleasanton Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 419-8419 Fax: (925) 600-3002

Reference #: 187111

12/5/2018

Report To

Attn: Holly Holbrook
Company: AECOM

Address: 909 W. Town & Country Rd, Orange, CA 92869

Email: Holly.Holbrook@AECOM.COM
Bill To: NG
Sampled By: Ben Leebner

Attn: Phone: _____
Sample ID: Date: Time: Mat: Preserv:

16058-BH10-23-1244208	12/4/18	1140	W	HCl	X
16058-BH10-32-1244208	12/4/18	1150	W	HCl	X
16058-BH11-23-1244208	12/4/18	1230	W	HCl	X
16058-BH11-27-1244208	12/4/18	1240	W	HCl	X
16058-BH11-30-1244208	12/4/18	1310	W	HCl	X
16058-BH12-17-1244208	12/4/18	1600	W	HCl	X
16058-BH12-25-1244208	12/4/18	1535	W	HCl	X

Analysis Request

Volatile Organics GC/MS (VOCs)
EPA 8260B

HVOCS by EPA 8260B

EPA 8260B Gas BTEX
 5 Oxygenates DCA, EDB Ethanol

TEPH EPA 8015B Silica Gel
 Diesel Motor Oil Other

SemiVolatile Organics GC/MS
EPA 8270C

PNA/PAH's by 8270C
 8270C SIM

Oil and Grease Petroleum
(EPA 1664/9071) Total

Pesticides EPA 8081
PCBs EPA 8082

CAM17 Metals
(EPA 6010/7470/7471)

Metals: 6010B 200.7
 Lead LUFT RCRA
Other: _____

Metals: 6020 200.8
(ICP-MS): _____

W.E.T (STLC)
 W.E.T (DI) TCLP

Hex. Chrom by EPA 7196
 or EPA 7199

pH 9040
 SM4500

Spec. Cond Alkalinity
 TSS SS TDS

Anions Cl SO₄ NO₃ F
 Br NO₂ PO₄

Perchlorate by EPA 314.0

COD EPA 410.4 SM5220D
 Turbidity

Number of Containers

Date _____ Page _____ of _____

Page 3 of 41

Project Info. Sample Receipt

1) Relinquished by:
Ben Leebner 0800
Signature _____ Time _____

2) Relinquished by:
Signature _____ Time _____

3) Relinquished by:
Signature _____ Time _____

Project Name/ #: Head Space:
PO#: Temp: Credit Card Y/N:
If yes, please call with payment information ASAP

Printed Name: Ben Leebner
Date: 12/5/18
Company: AECOM

Printed Name: Company: 720-90102 Chain of Custody

T A 10 5 4 3 2 1 Other:
Day Day Day Day Day Day

1) Received by: Signature: Ben Leebner 0800 Time: 12-5-18

2) Received by: Signature _____ Time _____

3) Received by: Signature _____ Time _____

Report: Routine Level 3 Level 4 EDD EDF
Special Instructions / Comments: Global ID _____

See Terms and Conditions on reverse

Login Sample Receipt Checklist

Client: AECOM

Job Number: 720-90102-1

Login Number: 90102

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Mullen, Joan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-90194-1

Client Project/Site: Former TRW Microwave

For:

AECOM

999 Town & Country Road

4th Floor

Orange, California 92868

Attn: Holly Holbrook

Holly Holbrook

Authorized for release by:

12/12/2018 11:39:23 AM

Afsaneh Salimpour, Senior Project Manager

(925)484-1919

afsaneh.salimpour@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	14
Lab Chronicle	15
Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	21

Definitions/Glossary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Job ID: 720-90194-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-90194-1

Comments

No additional comments.

Receipt

The sample was received on 12/7/2018 2:00 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: AECOM

TestAmerica Job ID: 720-90194-1

Project/Site: Former TRW Microwave

Client Sample ID: J6038-BH12-36-12072018

Lab Sample ID: 720-90194-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	170		5.0		ug/L	10		8260B	Total/NA
Trichloroethene	120		5.0		ug/L	10		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Client Sample ID: J6038-BH12-36-12072018

Lab Sample ID: 720-90194-1

Date Collected: 12/07/18 11:20

Matrix: Water

Date Received: 12/07/18 14:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/L			12/11/18 16:35	10
Acetone	ND		500		ug/L			12/11/18 16:35	10
Benzene	ND		5.0		ug/L			12/11/18 16:35	10
Dichlorobromomethane	ND		5.0		ug/L			12/11/18 16:35	10
Bromobenzene	ND		10		ug/L			12/11/18 16:35	10
Chlorobromomethane	ND		10		ug/L			12/11/18 16:35	10
Bromoform	ND		10		ug/L			12/11/18 16:35	10
Bromomethane	ND		10		ug/L			12/11/18 16:35	10
2-Butanone (MEK)	ND		500		ug/L			12/11/18 16:35	10
n-Butylbenzene	ND		10		ug/L			12/11/18 16:35	10
sec-Butylbenzene	ND		10		ug/L			12/11/18 16:35	10
tert-Butylbenzene	ND		10		ug/L			12/11/18 16:35	10
Carbon disulfide	ND		50		ug/L			12/11/18 16:35	10
Carbon tetrachloride	ND		5.0		ug/L			12/11/18 16:35	10
Chlorobenzene	ND		5.0		ug/L			12/11/18 16:35	10
Chloroethane	ND		10		ug/L			12/11/18 16:35	10
Chloroform	ND		10		ug/L			12/11/18 16:35	10
Chloromethane	ND		10		ug/L			12/11/18 16:35	10
2-Chlorotoluene	ND		5.0		ug/L			12/11/18 16:35	10
4-Chlorotoluene	ND		5.0		ug/L			12/11/18 16:35	10
Chlorodibromomethane	ND		5.0		ug/L			12/11/18 16:35	10
1,2-Dichlorobenzene	ND		5.0		ug/L			12/11/18 16:35	10
1,3-Dichlorobenzene	ND		5.0		ug/L			12/11/18 16:35	10
1,4-Dichlorobenzene	ND		5.0		ug/L			12/11/18 16:35	10
1,3-Dichloropropane	ND		10		ug/L			12/11/18 16:35	10
1,1-Dichloropropene	ND		5.0		ug/L			12/11/18 16:35	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			12/11/18 16:35	10
Ethylene Dibromide	ND		5.0		ug/L			12/11/18 16:35	10
Dibromomethane	ND		5.0		ug/L			12/11/18 16:35	10
Dichlorodifluoromethane	ND		5.0		ug/L			12/11/18 16:35	10
1,1-Dichloroethane	ND		5.0		ug/L			12/11/18 16:35	10
1,2-Dichloroethane	ND		5.0		ug/L			12/11/18 16:35	10
1,1-Dichloroethene	ND		5.0		ug/L			12/11/18 16:35	10
cis-1,2-Dichloroethene	170		5.0		ug/L			12/11/18 16:35	10
trans-1,2-Dichloroethene	ND		5.0		ug/L			12/11/18 16:35	10
1,2-Dichloropropane	ND		5.0		ug/L			12/11/18 16:35	10
cis-1,3-Dichloropropene	ND		5.0		ug/L			12/11/18 16:35	10
trans-1,3-Dichloropropene	ND		5.0		ug/L			12/11/18 16:35	10
Ethylbenzene	ND		5.0		ug/L			12/11/18 16:35	10
Hexachlorobutadiene	ND		10		ug/L			12/11/18 16:35	10
2-Hexanone	ND		500		ug/L			12/11/18 16:35	10
Isopropylbenzene	ND		5.0		ug/L			12/11/18 16:35	10
4-Isopropyltoluene	ND		10		ug/L			12/11/18 16:35	10
Methylene Chloride	ND		50		ug/L			12/11/18 16:35	10
4-Methyl-2-pentanone (MIBK)	ND		500		ug/L			12/11/18 16:35	10
Naphthalene	ND		10		ug/L			12/11/18 16:35	10
N-Propylbenzene	ND		10		ug/L			12/11/18 16:35	10
Styrene	ND		5.0		ug/L			12/11/18 16:35	10
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			12/11/18 16:35	10

TestAmerica Pleasanton

Client Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Client Sample ID: J6038-BH12-36-12072018

Lab Sample ID: 720-90194-1

Date Collected: 12/07/18 11:20

Matrix: Water

Date Received: 12/07/18 14:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			12/11/18 16:35	10
Tetrachloroethene	ND		5.0		ug/L			12/11/18 16:35	10
Toluene	ND		5.0		ug/L			12/11/18 16:35	10
1,2,3-Trichlorobenzene	ND		10		ug/L			12/11/18 16:35	10
1,2,4-Trichlorobenzene	ND		10		ug/L			12/11/18 16:35	10
1,1,1-Trichloroethane	ND		5.0		ug/L			12/11/18 16:35	10
1,1,2-Trichloroethane	ND		5.0		ug/L			12/11/18 16:35	10
Trichloroethene	120		5.0		ug/L			12/11/18 16:35	10
Trichlorofluoromethane	ND		10		ug/L			12/11/18 16:35	10
1,2,3-Trichloropropane	ND		10		ug/L			12/11/18 16:35	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			12/11/18 16:35	10
1,2,4-Trimethylbenzene	ND		5.0		ug/L			12/11/18 16:35	10
1,3,5-Trimethylbenzene	ND		5.0		ug/L			12/11/18 16:35	10
Vinyl acetate	ND		100		ug/L			12/11/18 16:35	10
Vinyl chloride	ND		5.0		ug/L			12/11/18 16:35	10
Xylenes, Total	ND		5.0		ug/L			12/11/18 16:35	10
2,2-Dichloropropane	ND		5.0		ug/L			12/11/18 16:35	10
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	115		67 - 130					12/11/18 16:35	10
1,2-Dichloroethane-d4 (Surr)	105		72 - 130					12/11/18 16:35	10
Toluene-d8 (Surr)	99		70 - 130					12/11/18 16:35	10

TestAmerica Pleasanton

Surrogate Summary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (67-130)	DCA (72-130)	TOL (70-130)							
720-90194-1	J6038-BH12-36-12072018	115	105	99							
LCS 720-256745/5	Lab Control Sample	103	102	101							
LCSD 720-256745/6	Lab Control Sample Dup	101	98	99							
MB 720-256745/4	Method Blank	100	103	100							

Surrogate Legend

BFB = 4-Bromofluorobenzene

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-256745/4

Matrix: Water

Analysis Batch: 256745

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		ND		0.50		ug/L			12/11/18 09:52	1
Acetone	ND		ND		50		ug/L			12/11/18 09:52	1
Benzene	ND		ND		0.50		ug/L			12/11/18 09:52	1
Dichlorobromomethane	ND		ND		0.50		ug/L			12/11/18 09:52	1
Bromobenzene	ND		ND		1.0		ug/L			12/11/18 09:52	1
Chlorobromomethane	ND		ND		1.0		ug/L			12/11/18 09:52	1
Bromoform	ND		ND		1.0		ug/L			12/11/18 09:52	1
Bromomethane	ND		ND		1.0		ug/L			12/11/18 09:52	1
2-Butanone (MEK)	ND		ND		50		ug/L			12/11/18 09:52	1
n-Butylbenzene	ND		ND		1.0		ug/L			12/11/18 09:52	1
sec-Butylbenzene	ND		ND		1.0		ug/L			12/11/18 09:52	1
tert-Butylbenzene	ND		ND		1.0		ug/L			12/11/18 09:52	1
Carbon disulfide	ND		ND		5.0		ug/L			12/11/18 09:52	1
Carbon tetrachloride	ND		ND		0.50		ug/L			12/11/18 09:52	1
Chlorobenzene	ND		ND		0.50		ug/L			12/11/18 09:52	1
Chloroethane	ND		ND		1.0		ug/L			12/11/18 09:52	1
Chloroform	ND		ND		1.0		ug/L			12/11/18 09:52	1
Chloromethane	ND		ND		1.0		ug/L			12/11/18 09:52	1
2-Chlorotoluene	ND		ND		0.50		ug/L			12/11/18 09:52	1
4-Chlorotoluene	ND		ND		0.50		ug/L			12/11/18 09:52	1
Chlorodibromomethane	ND		ND		0.50		ug/L			12/11/18 09:52	1
1,2-Dichlorobenzene	ND		ND		0.50		ug/L			12/11/18 09:52	1
1,3-Dichlorobenzene	ND		ND		0.50		ug/L			12/11/18 09:52	1
1,4-Dichlorobenzene	ND		ND		0.50		ug/L			12/11/18 09:52	1
1,3-Dichloropropane	ND		ND		1.0		ug/L			12/11/18 09:52	1
1,1-Dichloropropene	ND		ND		0.50		ug/L			12/11/18 09:52	1
1,2-Dibromo-3-Chloropropane	ND		ND		1.0		ug/L			12/11/18 09:52	1
Ethylene Dibromide	ND		ND		0.50		ug/L			12/11/18 09:52	1
Dibromomethane	ND		ND		0.50		ug/L			12/11/18 09:52	1
Dichlorodifluoromethane	ND		ND		0.50		ug/L			12/11/18 09:52	1
1,1-Dichloroethane	ND		ND		0.50		ug/L			12/11/18 09:52	1
1,2-Dichloroethane	ND		ND		0.50		ug/L			12/11/18 09:52	1
1,1-Dichloroethene	ND		ND		0.50		ug/L			12/11/18 09:52	1
cis-1,2-Dichloroethene	ND		ND		0.50		ug/L			12/11/18 09:52	1
trans-1,2-Dichloroethene	ND		ND		0.50		ug/L			12/11/18 09:52	1
1,2-Dichloropropane	ND		ND		0.50		ug/L			12/11/18 09:52	1
cis-1,3-Dichloropropene	ND		ND		0.50		ug/L			12/11/18 09:52	1
trans-1,3-Dichloropropene	ND		ND		0.50		ug/L			12/11/18 09:52	1
Ethylbenzene	ND		ND		0.50		ug/L			12/11/18 09:52	1
Hexachlorobutadiene	ND		ND		1.0		ug/L			12/11/18 09:52	1
2-Hexanone	ND		ND		50		ug/L			12/11/18 09:52	1
Isopropylbenzene	ND		ND		0.50		ug/L			12/11/18 09:52	1
4-Isopropyltoluene	ND		ND		1.0		ug/L			12/11/18 09:52	1
Methylene Chloride	ND		ND		5.0		ug/L			12/11/18 09:52	1
4-Methyl-2-pentanone (MIBK)	ND		ND		50		ug/L			12/11/18 09:52	1
Naphthalene	ND		ND		1.0		ug/L			12/11/18 09:52	1
N-Propylbenzene	ND		ND		1.0		ug/L			12/11/18 09:52	1
Styrene	ND		ND		0.50		ug/L			12/11/18 09:52	1

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-256745/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 256745

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND				0.50		ug/L			12/11/18 09:52	1
1,1,2,2-Tetrachloroethane	ND				0.50		ug/L			12/11/18 09:52	1
Tetrachloroethene	ND				0.50		ug/L			12/11/18 09:52	1
Toluene	ND				0.50		ug/L			12/11/18 09:52	1
1,2,3-Trichlorobenzene	ND				1.0		ug/L			12/11/18 09:52	1
1,2,4-Trichlorobenzene	ND				1.0		ug/L			12/11/18 09:52	1
1,1,1-Trichloroethane	ND				0.50		ug/L			12/11/18 09:52	1
1,1,2-Trichloroethane	ND				0.50		ug/L			12/11/18 09:52	1
Trichloroethene	ND				0.50		ug/L			12/11/18 09:52	1
Trichlorofluoromethane	ND				1.0		ug/L			12/11/18 09:52	1
1,2,3-Trichloropropane	ND				1.0		ug/L			12/11/18 09:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				0.50		ug/L			12/11/18 09:52	1
1,2,4-Trimethylbenzene	ND				0.50		ug/L			12/11/18 09:52	1
1,3,5-Trimethylbenzene	ND				0.50		ug/L			12/11/18 09:52	1
Vinyl acetate	ND				10		ug/L			12/11/18 09:52	1
Vinyl chloride	ND				0.50		ug/L			12/11/18 09:52	1
Xylenes, Total	ND				0.50		ug/L			12/11/18 09:52	1
2,2-Dichloropropane	ND				0.50		ug/L			12/11/18 09:52	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	100				67 - 130					12/11/18 09:52	1
1,2-Dichloroethane-d4 (Surr)	103				72 - 130					12/11/18 09:52	1
Toluene-d8 (Surr)	100				70 - 130					12/11/18 09:52	1

Lab Sample ID: LCS 720-256745/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 256745

Analyte	Spike Added	LC S	LC S	Unit	D	%Rec	Limits
		Result	Qualifier				
Methyl tert-butyl ether	25.0	24.8		ug/L		99	70 - 130
Acetone	125	134		ug/L		107	61 - 147
Benzene	25.0	26.3		ug/L		105	79 - 119
Dichlorobromomethane	25.0	28.1		ug/L		112	81 - 130
Bromobenzene	25.0	26.2		ug/L		105	77 - 117
Chlorobromomethane	25.0	27.0		ug/L		108	81 - 122
Bromoform	25.0	27.2		ug/L		109	75 - 127
Bromomethane	25.0	25.6		ug/L		102	70 - 132
2-Butanone (MEK)	125	135		ug/L		108	66 - 133
n-Butylbenzene	25.0	26.8		ug/L		107	78 - 119
sec-Butylbenzene	25.0	26.4		ug/L		106	78 - 118
tert-Butylbenzene	25.0	26.0		ug/L		104	78 - 118
Carbon disulfide	25.0	27.3		ug/L		109	64 - 127
Carbon tetrachloride	25.0	26.5		ug/L		106	72 - 142
Chlorobenzene	25.0	27.0		ug/L		108	76 - 116
Chloroethane	25.0	26.3		ug/L		105	70 - 131
Chloroform	25.0	27.1		ug/L		109	82 - 119
Chloromethane	25.0	25.1		ug/L		100	49 - 134
2-Chlorotoluene	25.0	26.3		ug/L		105	75 - 115

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-256745/5

Matrix: Water

Analysis Batch: 256745

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
4-Chlorotoluene	25.0	26.8		ug/L		107	73 - 119
Chlorodibromomethane	25.0	28.8		ug/L		115	77 - 133
1,2-Dichlorobenzene	25.0	27.2		ug/L		109	77 - 117
1,3-Dichlorobenzene	25.0	27.2		ug/L		109	76 - 116
1,4-Dichlorobenzene	25.0	27.5		ug/L		110	76 - 116
1,3-Dichloropropane	25.0	27.1		ug/L		108	77 - 117
1,1-Dichloropropene	25.0	26.9		ug/L		108	83 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.8		ug/L		103	74 - 126
Ethylene Dibromide	25.0	27.6		ug/L		111	80 - 121
Dibromomethane	25.0	27.2		ug/L		109	79 - 117
Dichlorodifluoromethane	25.0	24.8		ug/L		99	21 - 150
1,1-Dichloroethane	25.0	27.4		ug/L		110	77 - 119
1,2-Dichloroethane	25.0	27.2		ug/L		109	73 - 122
1,1-Dichloroethene	25.0	27.3		ug/L		109	69 - 119
cis-1,2-Dichloroethene	25.0	27.5		ug/L		110	77 - 117
trans-1,2-Dichloroethene	25.0	27.9		ug/L		112	79 - 117
1,2-Dichloropropane	25.0	28.5		ug/L		114	79 - 119
cis-1,3-Dichloropropene	25.0	29.1		ug/L		116	82 - 119
trans-1,3-Dichloropropene	25.0	27.5		ug/L		110	76 - 122
Ethylbenzene	25.0	26.4		ug/L		106	77 - 117
Hexachlorobutadiene	25.0	25.5		ug/L		102	78 - 140
2-Hexanone	125	137		ug/L		110	63 - 140
Isopropylbenzene	25.0	27.2		ug/L		109	77 - 130
4-Isopropyltoluene	25.0	27.0		ug/L		108	80 - 120
Methylene Chloride	25.0	24.8		ug/L		99	75 - 117
4-Methyl-2-pentanone (MIBK)	125	137		ug/L		109	66 - 140
Naphthalene	25.0	27.0		ug/L		108	81 - 121
N-Propylbenzene	25.0	26.6		ug/L		106	77 - 117
Styrene	25.0	25.8		ug/L		103	76 - 116
1,1,1,2-Tetrachloroethane	25.0	27.4		ug/L		110	81 - 121
1,1,2,2-Tetrachloroethane	25.0	28.2		ug/L		113	70 - 115
Tetrachloroethene	25.0	26.8		ug/L		107	81 - 130
Toluene	25.0	25.9		ug/L		104	75 - 120
1,2,3-Trichlorobenzene	25.0	27.1		ug/L		108	87 - 123
1,2,4-Trichlorobenzene	25.0	27.0		ug/L		108	78 - 120
1,1,1-Trichloroethane	25.0	26.7		ug/L		107	74 - 130
1,1,2-Trichloroethane	25.0	28.5		ug/L		114	80 - 117
Trichloroethene	25.0	26.5		ug/L		106	80 - 123
Trichlorofluoromethane	25.0	25.9		ug/L		104	75 - 141
1,2,3-Trichloropropane	25.0	26.9		ug/L		108	77 - 120
1,1,2-Trichloro-1,2,2-trifluoroetha ne	25.0	26.9		ug/L		108	70 - 133
1,2,4-Trimethylbenzene	25.0	26.6		ug/L		107	75 - 115
1,3,5-Trimethylbenzene	25.0	26.4		ug/L		106	77 - 117
Vinyl acetate	25.0	26.5		ug/L		106	50 - 126
Vinyl chloride	25.0	26.2		ug/L		105	58 - 138
m-Xylene & p-Xylene	25.0	26.1		ug/L		105	74 - 119
o-Xylene	25.0	26.8		ug/L		107	77 - 118

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-256745/5

Matrix: Water

Analysis Batch: 256745

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS				%Rec.
	Added	Result	Qualifier	Unit	D	%Rec	Limits
2,2-Dichloropropane	25.0	26.3		ug/L		105	74 - 156
Surrogate							
4-Bromofluorobenzene	103		67 - 130				
1,2-Dichloroethane-d4 (Surr)	102		72 - 130				
Toluene-d8 (Surr)	101		70 - 130				

Lab Sample ID: LCSD 720-256745/6

Matrix: Water

Analysis Batch: 256745

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD				%Rec.	RPD	Limit
	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Methyl tert-butyl ether	25.0	24.0		ug/L		96	70 - 130	3	20
Acetone	125	109		ug/L		87	61 - 147	20	30
Benzene	25.0	26.1		ug/L		104	79 - 119	1	20
Dichlorobromomethane	25.0	27.4		ug/L		109	81 - 130	3	20
Bromobenzene	25.0	26.5		ug/L		106	77 - 117	1	20
Chlorobromomethane	25.0	26.0		ug/L		104	81 - 122	4	20
Bromoform	25.0	25.4		ug/L		102	75 - 127	7	20
Bromomethane	25.0	25.6		ug/L		102	70 - 132	0	20
2-Butanone (MEK)	125	110		ug/L		88	66 - 133	21	22
n-Butylbenzene	25.0	26.9		ug/L		108	78 - 119	0	20
sec-Butylbenzene	25.0	26.8		ug/L		107	78 - 118	2	20
tert-Butylbenzene	25.0	26.7		ug/L		107	78 - 118	2	20
Carbon disulfide	25.0	27.5		ug/L		110	64 - 127	1	20
Carbon tetrachloride	25.0	26.4		ug/L		106	72 - 142	0	20
Chlorobenzene	25.0	26.8		ug/L		107	76 - 116	1	20
Chloroethane	25.0	26.0		ug/L		104	70 - 131	1	20
Chloroform	25.0	27.0		ug/L		108	82 - 119	1	20
Chloromethane	25.0	25.4		ug/L		102	49 - 134	1	20
2-Chlorotoluene	25.0	26.9		ug/L		108	75 - 115	2	20
4-Chlorotoluene	25.0	27.3		ug/L		109	73 - 119	2	20
Chlorodibromomethane	25.0	27.4		ug/L		110	77 - 133	5	20
1,2-Dichlorobenzene	25.0	27.1		ug/L		108	77 - 117	1	20
1,3-Dichlorobenzene	25.0	27.1		ug/L		108	76 - 116	0	20
1,4-Dichlorobenzene	25.0	27.3		ug/L		109	76 - 116	1	20
1,3-Dichloropropane	25.0	25.6		ug/L		102	77 - 117	6	20
1,1-Dichloropropene	25.0	26.9		ug/L		107	83 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	22.3		ug/L		89	74 - 126	15	20
Ethylene Dibromide	25.0	25.8		ug/L		103	80 - 121	7	20
Dibromomethane	25.0	25.7		ug/L		103	79 - 117	5	20
Dichlorodifluoromethane	25.0	24.9		ug/L		100	21 - 150	0	20
1,1-Dichloroethane	25.0	27.4		ug/L		110	77 - 119	0	20
1,2-Dichloroethane	25.0	26.2		ug/L		105	73 - 122	4	20
1,1-Dichloroethene	25.0	27.7		ug/L		111	69 - 119	2	20
cis-1,2-Dichloroethene	25.0	27.2		ug/L		109	77 - 117	1	20
trans-1,2-Dichloroethene	25.0	28.1		ug/L		112	79 - 117	1	20
1,2-Dichloropropane	25.0	27.8		ug/L		111	79 - 119	2	20

TestAmerica Pleasanton

QC Sample Results

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-256745/6

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 256745

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Added	Result	Qualifier						
cis-1,3-Dichloropropene	25.0	28.1		ug/L		112	82 - 119	4	20
trans-1,3-Dichloropropene	25.0	26.2		ug/L		105	76 - 122	5	20
Ethylbenzene	25.0	26.6		ug/L		106	77 - 117	1	20
Hexachlorobutadiene	25.0	25.2		ug/L		101	78 - 140	1	20
2-Hexanone	125	114		ug/L		91	63 - 140	19	24
Isopropylbenzene	25.0	27.3		ug/L		109	77 - 130	0	20
4-Isopropyltoluene	25.0	27.2		ug/L		109	80 - 120	1	20
Methylene Chloride	25.0	24.4		ug/L		97	75 - 117	2	20
4-Methyl-2-pentanone (MIBK)	125	116		ug/L		93	66 - 140	16	21
Naphthalene	25.0	24.7		ug/L		99	81 - 121	9	20
N-Propylbenzene	25.0	27.1		ug/L		108	77 - 117	2	20
Styrene	25.0	25.8		ug/L		103	76 - 116	0	20
1,1,1,2-Tetrachloroethane	25.0	27.3		ug/L		109	81 - 121	1	20
1,1,2,2-Tetrachloroethane	25.0	26.2		ug/L		105	70 - 115	7	20
Tetrachloroethene	25.0	26.2		ug/L		105	81 - 130	2	20
Toluene	25.0	25.9		ug/L		104	75 - 120	0	20
1,2,3-Trichlorobenzene	25.0	25.4		ug/L		101	87 - 123	7	20
1,2,4-Trichlorobenzene	25.0	25.6		ug/L		102	78 - 120	5	20
1,1,1-Trichloroethane	25.0	27.0		ug/L		108	74 - 130	1	20
1,1,2-Trichloroethane	25.0	27.1		ug/L		108	80 - 117	5	20
Trichloroethene	25.0	26.3		ug/L		105	80 - 123	1	20
Trichlorofluoromethane	25.0	26.1		ug/L		104	75 - 141	1	20
1,2,3-Trichloropropane	25.0	24.8		ug/L		99	77 - 120	8	20
1,1,2-Trichloro-1,2,2-trifluoroetha	25.0	26.0		ug/L		104	70 - 133	4	20
ne									
1,2,4-Trimethylbenzene	25.0	26.9		ug/L		108	75 - 115	1	20
1,3,5-Trimethylbenzene	25.0	26.9		ug/L		108	77 - 117	2	20
Vinyl acetate	25.0	24.2		ug/L		97	50 - 126	9	20
Vinyl chloride	25.0	27.2		ug/L		109	58 - 138	4	20
m-Xylene & p-Xylene	25.0	26.3		ug/L		105	74 - 119	1	20
o-Xylene	25.0	26.9		ug/L		108	77 - 118	0	20
2,2-Dichloropropane	25.0	26.4		ug/L		106	74 - 156	0	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	98		72 - 130
Toluene-d8 (Surr)	99		70 - 130

TestAmerica Pleasanton

QC Association Summary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

GC/MS VOA

Analysis Batch: 256745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-90194-1	J6038-BH12-36-12072018	Total/NA	Water	8260B	
MB 720-256745/4	Method Blank	Total/NA	Water	8260B	
LCS 720-256745/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-256745/6	Lab Control Sample Dup	Total/NA	Water	8260B	

TestAmerica Pleasanton

Lab Chronicle

Client: AECOM

TestAmerica Job ID: 720-90194-1

Project/Site: Former TRW Microwave

Client Sample ID: J6038-BH12-36-12072018

Lab Sample ID: 720-90194-1

Date Collected: 12/07/18 11:20

Matrix: Water

Date Received: 12/07/18 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	256745	12/11/18 16:35	AJS	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TestAmerica Pleasanton

Accreditation/Certification Summary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Laboratory: TestAmerica Pleasanton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-20
USDA	Federal		P330-17-00380	12-11-20

TestAmerica Pleasanton

Method Summary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PLS
5030B	Purge and Trap	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TestAmerica Pleasanton

Sample Summary

Client: AECOM

Project/Site: Former TRW Microwave

TestAmerica Job ID: 720-90194-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-90194-1	J6038-BH12-36-12072018	Water	12/07/18 11:20	12/07/18 14:00

TestAmerica Pleasanton

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
720-901-9941

TESTAMERICA Pleasanton Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

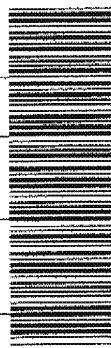
Reference #: 1071941

Report To

Attn: Holly Holbrook
Company: AECOM
Address: 909 W Town & Country Rd, Orange, CA 92866
Email: Holly.holbrook@decom.com
Bill To: NSC
Attn: Sample By: Sam Holbrook
Phone:

Sample ID Date Time Mat Preserv

1035-B12-36-12042018 12/7/18 1120 W HCl X



720-90194 Chain of Custody

Page 19 of 21

Analysis Request

		Number of Containers	
		<input type="checkbox"/> Turbidity	
		<input type="checkbox"/> COD <input type="checkbox"/> EPA 4104 <input type="checkbox"/> SM5220D	
		<input type="checkbox"/> Perchlorate by EPA 3140	
		<input type="checkbox"/> Authors: <input type="checkbox"/> CI <input type="checkbox"/> SO ₂ <input type="checkbox"/> NO ₂ <input type="checkbox"/> PO ₂ <input type="checkbox"/> F	
		<input type="checkbox"/> TSS <input type="checkbox"/> SS <input type="checkbox"/> TDS	
		<input type="checkbox"/> Spec Cond. <input type="checkbox"/> Alkalinity	
		<input type="checkbox"/> pH <input type="checkbox"/> 9040 <input type="checkbox"/> SM4500	
		<input type="checkbox"/> Hex. Chrom by <input type="checkbox"/> EPA 7196 <input type="checkbox"/> or EPA 7199	
		<input type="checkbox"/> ICP-MS <input type="checkbox"/> 6020 <input type="checkbox"/> 200.8	
		<input type="checkbox"/> Metals <input type="checkbox"/> 60108 <input type="checkbox"/> 200.7 <input type="checkbox"/> Other: <input type="checkbox"/> Lead <input type="checkbox"/> LUF <input type="checkbox"/> DR/CR/A	
		<input type="checkbox"/> CM17 Metals <input type="checkbox"/> EPA 6010/7470/7471	
		<input type="checkbox"/> Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> PCBs <input type="checkbox"/> EPA 8082 <input type="checkbox"/> Total Petroleum Oil and Grease <input type="checkbox"/> Petroleum (EPA 1664/9001)	
		<input type="checkbox"/> PN/PAH's by <input type="checkbox"/> 8270C <input type="checkbox"/> 8270C SIM <input type="checkbox"/> 8270C GC/MS Semivolatile Organics	
		<input type="checkbox"/> TEPA 8015B <input type="checkbox"/> Diesel Motor Oil <input type="checkbox"/> Other: <input type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Silica Gel	
		<input type="checkbox"/> EPA 8280B <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> 5 Oxygenates <input type="checkbox"/> DCA <input type="checkbox"/> EDB <input type="checkbox"/> Ethanol	
		<input type="checkbox"/> VOCs by <input type="checkbox"/> EPA 8260B <input type="checkbox"/> EPA 8260B Volatile Organics GC/MS (VOCs)	

Project Info. Sample Receipt

Project Name #:	# of Containers.	Signature	Time	Printed Name	Date
	Head Space:	<i>Ben Holbrook</i>	12/7/18	<i>Ben Holbrook</i>	<i>12-7-18</i>
PO#:	Temp:	<i>12/7/18</i>	<i>12/7/18</i>	<i>AECOM</i>	<i>12-7-18</i>
Credit Card Y/N:	If yes, please call with payment information ASAP	1) Received by:	<i>Ben Holbrook</i>	<i>12/7/18</i>	3) Received by:
		Signature	<i>Ben Holbrook</i>	<i>12/7/18</i>	<i>12/7/18</i>
		Printed Name	<i>Ben Holbrook</i>	<i>12/7/18</i>	<i>12/7/18</i>
		Company	<i>AECOM</i>	<i>AECOM</i>	<i>AECOM</i>
Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> EDD <input type="checkbox"/> EDF	Special Instructions / Comments: <input type="checkbox"/> Global ID _____	Signature	<i>Ben Holbrook</i>	<i>12/7/18</i>	Signature
		Printed Name	<i>Ben Holbrook</i>	<i>12/7/18</i>	Printed Name
		Date	<i>12/7/18</i>	<i>12/7/18</i>	Date
		Company	<i>AECOM</i>	<i>AECOM</i>	Company

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

720-901-9944

Report To

Attn: Holly Holbrook
Company: AT&T
Address: 999 W. Town & Country Rd., Orange, CA 92868
Email: holly.holbrook@att.com
Bill To: NSC
Sampled By: Ben Hollander

Attn: Phone Date Mat Preserv

10038-BH12-36-12032018 12/7/18 1120 W HCl X

Sample ID: EPA 8260B

Volatile Organics GC/MS (VOCs)

EPA 8260B

DYogenates DCA, EDB, Ethanol

EPA 8260B, GAs, BTEx

TEPH EPA 8015B, Silica Gel

Diesel Motor Oil Other

PNA/PAHs by 8270C SIM

Oil and Grease D 8270C

Tetraethyl Lead

PCBs EPA 8081

Pesticides D 8010B, 200.8

ICP-MS

Metals D 6020, 200.8

WE-T(StC)

WE-T(DI) D TCIP

Hex Chrom by D EPA 7199

Ph D 9040

SM4500

Alkalinity D Spec Cond

SS D TDS

NO_x D NO₂

SO₂ D SO₃

NO_x D NO₂

BP D F

Ammonium D Turbidity

EDD D Global ID

EPA 3140 D SM5220D

EPA 410A D COD

3140 D EPA 3140

SM5220D D

Number of Containers

3

TESTAMERICA Pleasanton Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Date _____ Page _____ of _____

Reference #: 187194

Analysis Request

Project Info.

Sample Receipt

Project Name/ #: Ben Hollander 1200

of Containers:

Signature: Ben Hollander 12/7/18

Head Space:

Date: 12-7-18

Printed Name: AECOM

Company:

1) Received by: Ben Hollander 12/7/18

Signature: Ben Hollander 12/7/18

Printed Name: AECOM

Company:

2) Received by: Holly C.C.

Signature: Holly C.C. 12-7-18

Printed Name: Holly C.C.

Company:

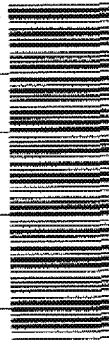
3) Received by: Brian A. 12-7-18

Signature: Brian A. 12-7-18

Printed Name: Brian A. 12-7-18

Company:

Page 20 of 21



720-901-9944 Chain of Custody

Credit Card Y/N: If yes, please call with payment information ASAP

Other: Standard

1) Received by: Holly C.C.

Signature: Holly C.C. 12/7/18

Printed Name: Holly C.C.

Company:

2) Received by: Brian A. 12-7-18

Signature: Brian A. 12-7-18

Printed Name: Brian A. 12-7-18

Company:

3) Received by: Holly C.C.

Signature: Holly C.C. 12-7-18

Printed Name: Holly C.C.

Company:

Report: Routine Level 3 Level 4 EDD EDF

Special Instructions / Comments: Global ID _____

See Terms and Conditions on reverse
12/12/2018

Rev. 11/2014

Login Sample Receipt Checklist

Client: AECOM

Job Number: 720-90194-1

Login Number: 90194

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-90321-1

Client Project/Site: TRW Microwave

For:

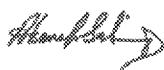
AECOM Technical Services Inc.

999 Town & Country Road

1st Floor

Orange, California 92868

Attn: Ms. Holly Holbrook



Authorized for release by:

12/21/2018 11:04:23 AM

Afsaneh Salimpour, Senior Project Manager

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Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
Surrogate Summary	14
QC Sample Results	15
QC Association Summary	35
Lab Chronicle	36
Certification Summary	37
Method Summary	38
Sample Summary	39
Chain of Custody	40
Receipt Checklists	41

Definitions/Glossary

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Job ID: 720-90321-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-90321-1

Comments

No additional comments.

Receipt

The samples were received on 12/14/2018 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.3° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample duplicate (LCSD) for analytical batch 720-257144 recovered outside control limits for the following analytes: 1,2,4-Trimethylbenzene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Client Sample ID: J6038-TRIPBLANK-121418

Lab Sample ID: 720-90321-1

No Detections.

Client Sample ID: J6038-T-25BD-121418

Lab Sample ID: 720-90321-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	77		5.0		ug/L		10	8260B	Total/NA
Tetrachloroethene	8.2		5.0		ug/L		10	8260B	Total/NA
Trichloroethene	450		5.0		ug/L		10	8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1		5.0		ug/L		10	8260B	Total/NA

Client Sample ID: J6038-T-25BS-121418

Lab Sample ID: 720-90321-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	270		5.0		ug/L		10	8260B	Total/NA
trans-1,2-Dichloroethene	6.6		5.0		ug/L		10	8260B	Total/NA
Trichloroethene	350		5.0		ug/L		10	8260B	Total/NA

Client Sample ID: J6038-EB-121418

Lab Sample ID: 720-90321-4

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Client Sample ID: J6038-TRIPBLANK-121418

Lab Sample ID: 720-90321-1

Date Collected: 12/14/18 09:00

Matrix: Water

Date Received: 12/14/18 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			12/17/18 17:20	1
Acetone	ND		50		ug/L			12/17/18 17:20	1
Benzene	ND		0.50		ug/L			12/17/18 17:20	1
Dichlorobromomethane	ND		0.50		ug/L			12/17/18 17:20	1
Bromobenzene	ND		1.0		ug/L			12/17/18 17:20	1
Chlorobromomethane	ND		1.0		ug/L			12/17/18 17:20	1
Bromoform	ND		1.0		ug/L			12/17/18 17:20	1
Bromomethane	ND		1.0		ug/L			12/17/18 17:20	1
2-Butanone (MEK)	ND		50		ug/L			12/17/18 17:20	1
n-Butylbenzene	ND		1.0		ug/L			12/17/18 17:20	1
sec-Butylbenzene	ND		1.0		ug/L			12/17/18 17:20	1
tert-Butylbenzene	ND		1.0		ug/L			12/17/18 17:20	1
Carbon disulfide	ND		5.0		ug/L			12/17/18 17:20	1
Carbon tetrachloride	ND		0.50		ug/L			12/17/18 17:20	1
Chlorobenzene	ND		0.50		ug/L			12/17/18 17:20	1
Chloroethane	ND		1.0		ug/L			12/17/18 17:20	1
Chloroform	ND		1.0		ug/L			12/17/18 17:20	1
Chloromethane	ND		1.0		ug/L			12/17/18 17:20	1
2-Chlorotoluene	ND		0.50		ug/L			12/17/18 17:20	1
4-Chlorotoluene	ND		0.50		ug/L			12/17/18 17:20	1
Chlorodibromomethane	ND		0.50		ug/L			12/17/18 17:20	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/17/18 17:20	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/17/18 17:20	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/17/18 17:20	1
1,3-Dichloropropane	ND		1.0		ug/L			12/17/18 17:20	1
1,1-Dichloropropene	ND		0.50		ug/L			12/17/18 17:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/17/18 17:20	1
Ethylene Dibromide	ND		0.50		ug/L			12/17/18 17:20	1
Dibromomethane	ND		0.50		ug/L			12/17/18 17:20	1
Dichlorodifluoromethane	ND		0.50		ug/L			12/17/18 17:20	1
1,1-Dichloroethane	ND		0.50		ug/L			12/17/18 17:20	1
1,2-Dichloroethane	ND		0.50		ug/L			12/17/18 17:20	1
1,1-Dichloroethene	ND		0.50		ug/L			12/17/18 17:20	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/17/18 17:20	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/17/18 17:20	1
1,2-Dichloropropane	ND		0.50		ug/L			12/17/18 17:20	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/17/18 17:20	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/17/18 17:20	1
Ethylbenzene	ND		0.50		ug/L			12/17/18 17:20	1
Hexachlorobutadiene	ND		1.0		ug/L			12/17/18 17:20	1
2-Hexanone	ND		50		ug/L			12/17/18 17:20	1
Isopropylbenzene	ND		0.50		ug/L			12/17/18 17:20	1
4-Isopropyltoluene	ND		1.0		ug/L			12/17/18 17:20	1
Methylene Chloride	ND		5.0		ug/L			12/17/18 17:20	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			12/17/18 17:20	1
Naphthalene	ND		1.0		ug/L			12/17/18 17:20	1
N-Propylbenzene	ND		1.0		ug/L			12/17/18 17:20	1
Styrene	ND		0.50		ug/L			12/17/18 17:20	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/17/18 17:20	1

TestAmerica Pleasanton

Client Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Client Sample ID: J6038-TRIPBLANK-121418

Lab Sample ID: 720-90321-1

Date Collected: 12/14/18 09:00

Matrix: Water

Date Received: 12/14/18 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/17/18 17:20	1
Tetrachloroethene	ND		0.50		ug/L			12/17/18 17:20	1
Toluene	ND		0.50		ug/L			12/17/18 17:20	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/17/18 17:20	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/17/18 17:20	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/17/18 17:20	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/17/18 17:20	1
Trichloroethene	ND		0.50		ug/L			12/17/18 17:20	1
Trichlorofluoromethane	ND		1.0		ug/L			12/17/18 17:20	1
1,2,3-Trichloropropane	ND		1.0		ug/L			12/17/18 17:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			12/17/18 17:20	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/17/18 17:20	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/17/18 17:20	1
Vinyl acetate	ND		10		ug/L			12/17/18 17:20	1
Vinyl chloride	ND		0.50		ug/L			12/17/18 17:20	1
Xylenes, Total	ND		0.50		ug/L			12/17/18 17:20	1
2,2-Dichloropropane	ND		0.50		ug/L			12/17/18 17:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 130					12/17/18 17:20	1
1,2-Dichloroethane-d4 (Surr)	109		72 - 130					12/17/18 17:20	1
Toluene-d8 (Surr)	101		70 - 130					12/17/18 17:20	1

TestAmerica Pleasanton

Client Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Client Sample ID: J6038-T-25BD-121418

Lab Sample ID: 720-90321-2

Matrix: Water

Date Collected: 12/14/18 09:27

Date Received: 12/14/18 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/L			12/18/18 13:42	10
Acetone	ND		500		ug/L			12/18/18 13:42	10
Benzene	ND		5.0		ug/L			12/18/18 13:42	10
Dichlorobromomethane	ND		5.0		ug/L			12/18/18 13:42	10
Bromobenzene	ND		10		ug/L			12/18/18 13:42	10
Chlorobromomethane	ND		10		ug/L			12/18/18 13:42	10
Bromoform	ND		10		ug/L			12/18/18 13:42	10
Bromomethane	ND		10		ug/L			12/18/18 13:42	10
2-Butanone (MEK)	ND		500		ug/L			12/18/18 13:42	10
n-Butylbenzene	ND		10		ug/L			12/18/18 13:42	10
sec-Butylbenzene	ND		10		ug/L			12/18/18 13:42	10
tert-Butylbenzene	ND		10		ug/L			12/18/18 13:42	10
Carbon disulfide	ND		50		ug/L			12/18/18 13:42	10
Carbon tetrachloride	ND		5.0		ug/L			12/18/18 13:42	10
Chlorobenzene	ND		5.0		ug/L			12/18/18 13:42	10
Chloroethane	ND		10		ug/L			12/18/18 13:42	10
Chloroform	ND		10		ug/L			12/18/18 13:42	10
Chloromethane	ND		10		ug/L			12/18/18 13:42	10
2-Chlorotoluene	ND		5.0		ug/L			12/18/18 13:42	10
4-Chlorotoluene	ND		5.0		ug/L			12/18/18 13:42	10
Chlorodibromomethane	ND		5.0		ug/L			12/18/18 13:42	10
1,2-Dichlorobenzene	ND		5.0		ug/L			12/18/18 13:42	10
1,3-Dichlorobenzene	ND		5.0		ug/L			12/18/18 13:42	10
1,4-Dichlorobenzene	ND		5.0		ug/L			12/18/18 13:42	10
1,3-Dichloropropane	ND		10		ug/L			12/18/18 13:42	10
1,1-Dichloropropene	ND		5.0		ug/L			12/18/18 13:42	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			12/18/18 13:42	10
Ethylene Dibromide	ND		5.0		ug/L			12/18/18 13:42	10
Dibromomethane	ND		5.0		ug/L			12/18/18 13:42	10
Dichlorodifluoromethane	ND		5.0		ug/L			12/18/18 13:42	10
1,1-Dichloroethane	ND		5.0		ug/L			12/18/18 13:42	10
1,2-Dichloroethane	ND		5.0		ug/L			12/18/18 13:42	10
1,1-Dichloroethene	ND		5.0		ug/L			12/18/18 13:42	10
cis-1,2-Dichloroethene	77		5.0		ug/L			12/18/18 13:42	10
trans-1,2-Dichloroethene	ND		5.0		ug/L			12/18/18 13:42	10
1,2-Dichloropropane	ND		5.0		ug/L			12/18/18 13:42	10
cis-1,3-Dichloropropene	ND		5.0		ug/L			12/18/18 13:42	10
trans-1,3-Dichloropropene	ND		5.0		ug/L			12/18/18 13:42	10
Ethylbenzene	ND		5.0		ug/L			12/18/18 13:42	10
Hexachlorobutadiene	ND		10		ug/L			12/18/18 13:42	10
2-Hexanone	ND		500		ug/L			12/18/18 13:42	10
Isopropylbenzene	ND		5.0		ug/L			12/18/18 13:42	10
4-Isopropyltoluene	ND		10		ug/L			12/18/18 13:42	10
Methylene Chloride	ND		50		ug/L			12/18/18 13:42	10
4-Methyl-2-pentanone (MIBK)	ND		500		ug/L			12/18/18 13:42	10
Naphthalene	ND		10		ug/L			12/18/18 13:42	10
N-Propylbenzene	ND		10		ug/L			12/18/18 13:42	10
Styrene	ND		5.0		ug/L			12/18/18 13:42	10
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			12/18/18 13:42	10

TestAmerica Pleasanton

Client Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Client Sample ID: J6038-T-25BD-121418

Lab Sample ID: 720-90321-2

Date Collected: 12/14/18 09:27

Matrix: Water

Date Received: 12/14/18 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			12/18/18 13:42	10
Tetrachloroethene	8.2		5.0		ug/L			12/18/18 13:42	10
Toluene	ND		5.0		ug/L			12/18/18 13:42	10
1,2,3-Trichlorobenzene	ND		10		ug/L			12/18/18 13:42	10
1,2,4-Trichlorobenzene	ND		10		ug/L			12/18/18 13:42	10
1,1,1-Trichloroethane	ND		5.0		ug/L			12/18/18 13:42	10
1,1,2-Trichloroethane	ND		5.0		ug/L			12/18/18 13:42	10
Trichloroethene	450		5.0		ug/L			12/18/18 13:42	10
Trichlorofluoromethane	ND		10		ug/L			12/18/18 13:42	10
1,2,3-Trichloropropane	ND		10		ug/L			12/18/18 13:42	10
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1		5.0		ug/L			12/18/18 13:42	10
ne									
1,2,4-Trimethylbenzene	ND *		5.0		ug/L			12/18/18 13:42	10
1,3,5-Trimethylbenzene	ND		5.0		ug/L			12/18/18 13:42	10
Vinyl acetate	ND		100		ug/L			12/18/18 13:42	10
Vinyl chloride	ND		5.0		ug/L			12/18/18 13:42	10
Xylenes, Total	ND		5.0		ug/L			12/18/18 13:42	10
2,2-Dichloropropane	ND		5.0		ug/L			12/18/18 13:42	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	86		67 - 130				12/18/18 13:42	10	
1,2-Dichloroethane-d4 (Surr)	104		72 - 130				12/18/18 13:42	10	
Toluene-d8 (Surr)	101		70 - 130				12/18/18 13:42	10	

TestAmerica Pleasanton

Client Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Client Sample ID: J6038-T-25BS-121418

Lab Sample ID: 720-90321-3

Date Collected: 12/14/18 10:35

Matrix: Water

Date Received: 12/14/18 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/L			12/18/18 13:14	10
Acetone	ND		500		ug/L			12/18/18 13:14	10
Benzene	ND		5.0		ug/L			12/18/18 13:14	10
Dichlorobromomethane	ND		5.0		ug/L			12/18/18 13:14	10
Bromobenzene	ND		10		ug/L			12/18/18 13:14	10
Chlorobromomethane	ND		10		ug/L			12/18/18 13:14	10
Bromoform	ND		10		ug/L			12/18/18 13:14	10
Bromomethane	ND		10		ug/L			12/18/18 13:14	10
2-Butanone (MEK)	ND		500		ug/L			12/18/18 13:14	10
n-Butylbenzene	ND		10		ug/L			12/18/18 13:14	10
sec-Butylbenzene	ND		10		ug/L			12/18/18 13:14	10
tert-Butylbenzene	ND		10		ug/L			12/18/18 13:14	10
Carbon disulfide	ND		50		ug/L			12/18/18 13:14	10
Carbon tetrachloride	ND		5.0		ug/L			12/18/18 13:14	10
Chlorobenzene	ND		5.0		ug/L			12/18/18 13:14	10
Chloroethane	ND		10		ug/L			12/18/18 13:14	10
Chloroform	ND		10		ug/L			12/18/18 13:14	10
Chloromethane	ND		10		ug/L			12/18/18 13:14	10
2-Chlorotoluene	ND		5.0		ug/L			12/18/18 13:14	10
4-Chlorotoluene	ND		5.0		ug/L			12/18/18 13:14	10
Chlorodibromomethane	ND		5.0		ug/L			12/18/18 13:14	10
1,2-Dichlorobenzene	ND		5.0		ug/L			12/18/18 13:14	10
1,3-Dichlorobenzene	ND		5.0		ug/L			12/18/18 13:14	10
1,4-Dichlorobenzene	ND		5.0		ug/L			12/18/18 13:14	10
1,3-Dichloropropane	ND		10		ug/L			12/18/18 13:14	10
1,1-Dichloropropene	ND		5.0		ug/L			12/18/18 13:14	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			12/18/18 13:14	10
Ethylene Dibromide	ND		5.0		ug/L			12/18/18 13:14	10
Dibromomethane	ND		5.0		ug/L			12/18/18 13:14	10
Dichlorodifluoromethane	ND		5.0		ug/L			12/18/18 13:14	10
1,1-Dichloroethane	ND		5.0		ug/L			12/18/18 13:14	10
1,2-Dichloroethane	ND		5.0		ug/L			12/18/18 13:14	10
1,1-Dichloroethene	ND		5.0		ug/L			12/18/18 13:14	10
cis-1,2-Dichloroethene	270		5.0		ug/L			12/18/18 13:14	10
trans-1,2-Dichloroethene	6.6		5.0		ug/L			12/18/18 13:14	10
1,2-Dichloropropane	ND		5.0		ug/L			12/18/18 13:14	10
cis-1,3-Dichloropropene	ND		5.0		ug/L			12/18/18 13:14	10
trans-1,3-Dichloropropene	ND		5.0		ug/L			12/18/18 13:14	10
Ethylbenzene	ND		5.0		ug/L			12/18/18 13:14	10
Hexachlorobutadiene	ND		10		ug/L			12/18/18 13:14	10
2-Hexanone	ND		500		ug/L			12/18/18 13:14	10
Isopropylbenzene	ND		5.0		ug/L			12/18/18 13:14	10
4-Isopropyltoluene	ND		10		ug/L			12/18/18 13:14	10
Methylene Chloride	ND		50		ug/L			12/18/18 13:14	10
4-Methyl-2-pentanone (MIBK)	ND		500		ug/L			12/18/18 13:14	10
Naphthalene	ND		10		ug/L			12/18/18 13:14	10
N-Propylbenzene	ND		10		ug/L			12/18/18 13:14	10
Styrene	ND		5.0		ug/L			12/18/18 13:14	10
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			12/18/18 13:14	10

TestAmerica Pleasanton

Client Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Client Sample ID: J6038-T-25BS-121418

Lab Sample ID: 720-90321-3

Date Collected: 12/14/18 10:35

Matrix: Water

Date Received: 12/14/18 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			12/18/18 13:14	10
Tetrachloroethene	ND		5.0		ug/L			12/18/18 13:14	10
Toluene	ND		5.0		ug/L			12/18/18 13:14	10
1,2,3-Trichlorobenzene	ND		10		ug/L			12/18/18 13:14	10
1,2,4-Trichlorobenzene	ND		10		ug/L			12/18/18 13:14	10
1,1,1-Trichloroethane	ND		5.0		ug/L			12/18/18 13:14	10
1,1,2-Trichloroethane	ND		5.0		ug/L			12/18/18 13:14	10
Trichloroethene	350		5.0		ug/L			12/18/18 13:14	10
Trichlorofluoromethane	ND		10		ug/L			12/18/18 13:14	10
1,2,3-Trichloropropane	ND		10		ug/L			12/18/18 13:14	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			12/18/18 13:14	10
1,2,4-Trimethylbenzene	ND *		5.0		ug/L			12/18/18 13:14	10
1,3,5-Trimethylbenzene	ND		5.0		ug/L			12/18/18 13:14	10
Vinyl acetate	ND		100		ug/L			12/18/18 13:14	10
Vinyl chloride	ND		5.0		ug/L			12/18/18 13:14	10
Xylenes, Total	ND		5.0		ug/L			12/18/18 13:14	10
2,2-Dichloropropane	ND		5.0		ug/L			12/18/18 13:14	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		67 - 130					12/18/18 13:14	10
1,2-Dichloroethane-d4 (Surr)	104		72 - 130					12/18/18 13:14	10
Toluene-d8 (Surr)	101		70 - 130					12/18/18 13:14	10

TestAmerica Pleasanton

Client Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Client Sample ID: J6038-EB-121418

Lab Sample ID: 720-90321-4

Matrix: Water

Date Collected: 12/14/18 10:55

Date Received: 12/14/18 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			12/17/18 16:58	1
Acetone	ND		50		ug/L			12/17/18 16:58	1
Benzene	ND		0.50		ug/L			12/17/18 16:58	1
Dichlorobromomethane	ND		0.50		ug/L			12/17/18 16:58	1
Bromobenzene	ND		1.0		ug/L			12/17/18 16:58	1
Chlorobromomethane	ND		1.0		ug/L			12/17/18 16:58	1
Bromoform	ND		1.0		ug/L			12/17/18 16:58	1
Bromomethane	ND		1.0		ug/L			12/17/18 16:58	1
2-Butanone (MEK)	ND		50		ug/L			12/17/18 16:58	1
n-Butylbenzene	ND		1.0		ug/L			12/17/18 16:58	1
sec-Butylbenzene	ND		1.0		ug/L			12/17/18 16:58	1
tert-Butylbenzene	ND		1.0		ug/L			12/17/18 16:58	1
Carbon disulfide	ND		5.0		ug/L			12/17/18 16:58	1
Carbon tetrachloride	ND		0.50		ug/L			12/17/18 16:58	1
Chlorobenzene	ND		0.50		ug/L			12/17/18 16:58	1
Chloroethane	ND		1.0		ug/L			12/17/18 16:58	1
Chloroform	ND		1.0		ug/L			12/17/18 16:58	1
Chloromethane	ND		1.0		ug/L			12/17/18 16:58	1
2-Chlorotoluene	ND		0.50		ug/L			12/17/18 16:58	1
4-Chlorotoluene	ND		0.50		ug/L			12/17/18 16:58	1
Chlorodibromomethane	ND		0.50		ug/L			12/17/18 16:58	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/17/18 16:58	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/17/18 16:58	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/17/18 16:58	1
1,3-Dichloropropane	ND		1.0		ug/L			12/17/18 16:58	1
1,1-Dichloropropene	ND		0.50		ug/L			12/17/18 16:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/17/18 16:58	1
Ethylene Dibromide	ND		0.50		ug/L			12/17/18 16:58	1
Dibromomethane	ND		0.50		ug/L			12/17/18 16:58	1
Dichlorodifluoromethane	ND		0.50		ug/L			12/17/18 16:58	1
1,1-Dichloroethane	ND		0.50		ug/L			12/17/18 16:58	1
1,2-Dichloroethane	ND		0.50		ug/L			12/17/18 16:58	1
1,1-Dichloroethene	ND		0.50		ug/L			12/17/18 16:58	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/17/18 16:58	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/17/18 16:58	1
1,2-Dichloropropane	ND		0.50		ug/L			12/17/18 16:58	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/17/18 16:58	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/17/18 16:58	1
Ethylbenzene	ND		0.50		ug/L			12/17/18 16:58	1
Hexachlorobutadiene	ND		1.0		ug/L			12/19/18 12:03	1
2-Hexanone	ND		50		ug/L			12/17/18 16:58	1
Isopropylbenzene	ND		0.50		ug/L			12/17/18 16:58	1
4-Isopropyltoluene	ND		1.0		ug/L			12/17/18 16:58	1
Methylene Chloride	ND		5.0		ug/L			12/17/18 16:58	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			12/17/18 16:58	1
Naphthalene	ND		1.0		ug/L			12/19/18 12:03	1
N-Propylbenzene	ND		1.0		ug/L			12/17/18 16:58	1
Styrene	ND		0.50		ug/L			12/17/18 16:58	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/17/18 16:58	1

TestAmerica Pleasanton

Client Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Client Sample ID: J6038-EB-121418

Lab Sample ID: 720-90321-4

Date Collected: 12/14/18 10:55

Matrix: Water

Date Received: 12/14/18 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/17/18 16:58	1
Tetrachloroethene	ND		0.50		ug/L			12/17/18 16:58	1
Toluene	ND		0.50		ug/L			12/17/18 16:58	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/19/18 12:03	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/19/18 12:03	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/17/18 16:58	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/17/18 16:58	1
Trichloroethene	ND		0.50		ug/L			12/17/18 16:58	1
Trichlorofluoromethane	ND		1.0		ug/L			12/17/18 16:58	1
1,2,3-Trichloropropane	ND		1.0		ug/L			12/17/18 16:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			12/17/18 16:58	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/17/18 16:58	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/17/18 16:58	1
Vinyl acetate	ND		10		ug/L			12/17/18 16:58	1
Vinyl chloride	ND		0.50		ug/L			12/17/18 16:58	1
Xylenes, Total	ND		0.50		ug/L			12/17/18 16:58	1
2,2-Dichloropropane	ND		0.50		ug/L			12/17/18 16:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 130					12/17/18 16:58	1
4-Bromofluorobenzene	98		67 - 130					12/19/18 12:03	1
1,2-Dichloroethane-d4 (Surr)	104		72 - 130					12/17/18 16:58	1
1,2-Dichloroethane-d4 (Surr)	104		72 - 130					12/19/18 12:03	1
Toluene-d8 (Surr)	106		70 - 130					12/17/18 16:58	1
Toluene-d8 (Surr)	98		70 - 130					12/19/18 12:03	1

TestAmerica Pleasanton

Surrogate Summary

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (67-130)	DCA (72-130)	TOL (70-130)
720-90321-1	J6038-TRIPBLANK-121418	90	109	101
720-90321-2	J6038-T-25BD-121418	86	104	101
720-90321-3	J6038-T-25BS-121418	90	104	101
720-90321-4	J6038-EB-121418	104	104	106
720-90321-4	J6038-EB-121418	98	104	98
LCS 720-257057/5	Lab Control Sample	108	106	108
LCS 720-257059/5	Lab Control Sample	101	102	103
LCS 720-257144/5	Lab Control Sample	103	97	103
LCS 720-257216/5	Lab Control Sample	102	100	99
LCSD 720-257057/6	Lab Control Sample Dup	107	104	106
LCSD 720-257059/6	Lab Control Sample Dup	104	102	104
LCSD 720-257144/6	Lab Control Sample Dup	102	100	103
LCSD 720-257216/6	Lab Control Sample Dup	101	102	98
MB 720-257057/4	Method Blank	106	103	103
MB 720-257059/4	Method Blank	93	105	100
MB 720-257144/4	Method Blank	95	107	101
MB 720-257216/4	Method Blank	99	103	98

Surrogate Legend

BFB = 4-Bromofluorobenzene

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-257057/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257057

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		ND		0.50		ug/L			12/17/18 10:18	1
Acetone	ND		ND		50		ug/L			12/17/18 10:18	1
Benzene	ND		ND		0.50		ug/L			12/17/18 10:18	1
Dichlorobromomethane	ND		ND		0.50		ug/L			12/17/18 10:18	1
Bromobenzene	ND		ND		1.0		ug/L			12/17/18 10:18	1
Chlorobromomethane	ND		ND		1.0		ug/L			12/17/18 10:18	1
Bromoform	ND		ND		1.0		ug/L			12/17/18 10:18	1
Bromomethane	ND		ND		1.0		ug/L			12/17/18 10:18	1
2-Butanone (MEK)	ND		ND		50		ug/L			12/17/18 10:18	1
n-Butylbenzene	ND		ND		1.0		ug/L			12/17/18 10:18	1
sec-Butylbenzene	ND		ND		1.0		ug/L			12/17/18 10:18	1
tert-Butylbenzene	ND		ND		1.0		ug/L			12/17/18 10:18	1
Carbon disulfide	ND		ND		5.0		ug/L			12/17/18 10:18	1
Carbon tetrachloride	ND		ND		0.50		ug/L			12/17/18 10:18	1
Chlorobenzene	ND		ND		0.50		ug/L			12/17/18 10:18	1
Chloroethane	ND		ND		1.0		ug/L			12/17/18 10:18	1
Chloroform	ND		ND		1.0		ug/L			12/17/18 10:18	1
Chloromethane	ND		ND		1.0		ug/L			12/17/18 10:18	1
2-Chlorotoluene	ND		ND		0.50		ug/L			12/17/18 10:18	1
4-Chlorotoluene	ND		ND		0.50		ug/L			12/17/18 10:18	1
Chlorodibromomethane	ND		ND		0.50		ug/L			12/17/18 10:18	1
1,2-Dichlorobenzene	ND		ND		0.50		ug/L			12/17/18 10:18	1
1,3-Dichlorobenzene	ND		ND		0.50		ug/L			12/17/18 10:18	1
1,4-Dichlorobenzene	ND		ND		0.50		ug/L			12/17/18 10:18	1
1,3-Dichloropropane	ND		ND		1.0		ug/L			12/17/18 10:18	1
1,1-Dichloropropene	ND		ND		0.50		ug/L			12/17/18 10:18	1
1,2-Dibromo-3-Chloropropane	ND		ND		1.0		ug/L			12/17/18 10:18	1
Ethylene Dibromide	ND		ND		0.50		ug/L			12/17/18 10:18	1
Dibromomethane	ND		ND		0.50		ug/L			12/17/18 10:18	1
Dichlorodifluoromethane	ND		ND		0.50		ug/L			12/17/18 10:18	1
1,1-Dichloroethane	ND		ND		0.50		ug/L			12/17/18 10:18	1
1,2-Dichloroethane	ND		ND		0.50		ug/L			12/17/18 10:18	1
1,1-Dichloroethene	ND		ND		0.50		ug/L			12/17/18 10:18	1
cis-1,2-Dichloroethene	ND		ND		0.50		ug/L			12/17/18 10:18	1
trans-1,2-Dichloroethene	ND		ND		0.50		ug/L			12/17/18 10:18	1
1,2-Dichloropropane	ND		ND		0.50		ug/L			12/17/18 10:18	1
cis-1,3-Dichloropropene	ND		ND		0.50		ug/L			12/17/18 10:18	1
trans-1,3-Dichloropropene	ND		ND		0.50		ug/L			12/17/18 10:18	1
Ethylbenzene	ND		ND		0.50		ug/L			12/17/18 10:18	1
Hexachlorobutadiene	ND		ND		1.0		ug/L			12/17/18 10:18	1
2-Hexanone	ND		ND		50		ug/L			12/17/18 10:18	1
Isopropylbenzene	ND		ND		0.50		ug/L			12/17/18 10:18	1
4-Isopropyltoluene	ND		ND		1.0		ug/L			12/17/18 10:18	1
Methylene Chloride	ND		ND		5.0		ug/L			12/17/18 10:18	1
4-Methyl-2-pentanone (MIBK)	ND		ND		50		ug/L			12/17/18 10:18	1
Naphthalene	ND		ND		1.0		ug/L			12/17/18 10:18	1
N-Propylbenzene	ND		ND		1.0		ug/L			12/17/18 10:18	1
Styrene	ND		ND		0.50		ug/L			12/17/18 10:18	1

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-257057/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257057

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND				0.50		ug/L			12/17/18 10:18	1
1,1,2,2-Tetrachloroethane	ND				0.50		ug/L			12/17/18 10:18	1
Tetrachloroethene	ND				0.50		ug/L			12/17/18 10:18	1
Toluene	ND				0.50		ug/L			12/17/18 10:18	1
1,2,3-Trichlorobenzene	ND				1.0		ug/L			12/17/18 10:18	1
1,2,4-Trichlorobenzene	ND				1.0		ug/L			12/17/18 10:18	1
1,1,1-Trichloroethane	ND				0.50		ug/L			12/17/18 10:18	1
1,1,2-Trichloroethane	ND				0.50		ug/L			12/17/18 10:18	1
Trichloroethene	ND				0.50		ug/L			12/17/18 10:18	1
Trichlorofluoromethane	ND				1.0		ug/L			12/17/18 10:18	1
1,2,3-Trichloropropane	ND				1.0		ug/L			12/17/18 10:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				0.50		ug/L			12/17/18 10:18	1
1,2,4-Trimethylbenzene	ND				0.50		ug/L			12/17/18 10:18	1
1,3,5-Trimethylbenzene	ND				0.50		ug/L			12/17/18 10:18	1
Vinyl acetate	ND				10		ug/L			12/17/18 10:18	1
Vinyl chloride	ND				0.50		ug/L			12/17/18 10:18	1
Xylenes, Total	ND				0.50		ug/L			12/17/18 10:18	1
2,2-Dichloropropane	ND				0.50		ug/L			12/17/18 10:18	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	106				67 - 130					12/17/18 10:18	1
1,2-Dichloroethane-d4 (Surr)	103				72 - 130					12/17/18 10:18	1
Toluene-d8 (Surr)	103				70 - 130					12/17/18 10:18	1

Lab Sample ID: LCS 720-257057/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257057

Analyte	Spike Added	LC S	LC S	Unit	D	%Rec	Limits
		Result	Qualifier				
Methyl tert-butyl ether	25.0	28.5		ug/L		114	70 - 130
Acetone	125	138		ug/L		111	61 - 147
Benzene	25.0	26.3		ug/L		105	79 - 119
Dichlorobromomethane	25.0	27.2		ug/L		109	81 - 130
Bromobenzene	25.0	25.9		ug/L		104	77 - 117
Chlorobromomethane	25.0	24.7		ug/L		99	81 - 122
Bromoform	25.0	26.0		ug/L		104	75 - 127
Bromomethane	25.0	21.9		ug/L		88	70 - 132
2-Butanone (MEK)	125	133		ug/L		107	66 - 133
n-Butylbenzene	25.0	27.4		ug/L		110	78 - 119
sec-Butylbenzene	25.0	26.7		ug/L		107	78 - 118
tert-Butylbenzene	25.0	26.8		ug/L		107	78 - 118
Carbon disulfide	25.0	25.9		ug/L		104	64 - 127
Carbon tetrachloride	25.0	26.7		ug/L		107	72 - 142
Chlorobenzene	25.0	25.6		ug/L		102	76 - 116
Chloroethane	25.0	22.3		ug/L		89	70 - 131
Chloroform	25.0	25.9		ug/L		104	82 - 119
Chloromethane	25.0	21.2		ug/L		85	49 - 134
2-Chlorotoluene	25.0	27.0		ug/L		108	75 - 115

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-257057/5		Client Sample ID: Lab Control Sample Prep Type: Total/NA						
Analyte	Spike Added	LCS		Unit	D	%Rec	Limits	
		Result	Qualifier					
4-Chlorotoluene	25.0	27.4		ug/L		110	73 - 119	
Chlorodibromomethane	25.0	27.2		ug/L		109	77 - 133	
1,2-Dichlorobenzene	25.0	25.5		ug/L		102	77 - 117	
1,3-Dichlorobenzene	25.0	25.3		ug/L		101	76 - 116	
1,4-Dichlorobenzene	25.0	25.6		ug/L		102	76 - 116	
1,3-Dichloropropane	25.0	27.1		ug/L		108	77 - 117	
1,1-Dichloropropene	25.0	26.6		ug/L		106	83 - 130	
1,2-Dibromo-3-Chloropropane	25.0	25.3		ug/L		101	74 - 126	
Ethylene Dibromide	25.0	26.6		ug/L		106	80 - 121	
Dibromomethane	25.0	25.5		ug/L		102	79 - 117	
Dichlorodifluoromethane	25.0	20.8		ug/L		83	21 - 150	
1,1-Dichloroethane	25.0	26.9		ug/L		108	77 - 119	
1,2-Dichloroethane	25.0	26.1		ug/L		104	73 - 122	
1,1-Dichloroethene	25.0	25.3		ug/L		101	69 - 119	
cis-1,2-Dichloroethene	25.0	26.1		ug/L		104	77 - 117	
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	79 - 117	
1,2-Dichloropropane	25.0	27.5		ug/L		110	79 - 119	
cis-1,3-Dichloropropene	25.0	29.0		ug/L		116	82 - 119	
trans-1,3-Dichloropropene	25.0	28.5		ug/L		114	76 - 122	
Ethylbenzene	25.0	26.4		ug/L		106	77 - 117	
Hexachlorobutadiene	25.0	27.4		ug/L		110	78 - 140	
2-Hexanone	125	143		ug/L		115	63 - 140	
Isopropylbenzene	25.0	27.2		ug/L		109	77 - 130	
4-Isopropyltoluene	25.0	26.6		ug/L		107	80 - 120	
Methylene Chloride	25.0	26.0		ug/L		104	75 - 117	
4-Methyl-2-pentanone (MIBK)	125	142		ug/L		113	66 - 140	
Naphthalene	25.0	26.1		ug/L		104	81 - 121	
N-Propylbenzene	25.0	27.4		ug/L		110	77 - 117	
Styrene	25.0	28.1		ug/L		113	76 - 116	
1,1,1,2-Tetrachloroethane	25.0	26.5		ug/L		106	81 - 121	
1,1,2,2-Tetrachloroethane	25.0	25.7		ug/L		103	70 - 115	
Tetrachloroethene	25.0	26.1		ug/L		104	81 - 130	
Toluene	25.0	26.2		ug/L		105	75 - 120	
1,2,3-Trichlorobenzene	25.0	26.1		ug/L		104	87 - 123	
1,2,4-Trichlorobenzene	25.0	26.9		ug/L		108	78 - 120	
1,1,1-Trichloroethane	25.0	26.5		ug/L		106	74 - 130	
1,1,2-Trichloroethane	25.0	27.0		ug/L		108	80 - 117	
Trichloroethene	25.0	25.1		ug/L		100	80 - 123	
Trichlorofluoromethane	25.0	25.9		ug/L		103	75 - 141	
1,2,3-Trichloropropane	25.0	25.4		ug/L		102	77 - 120	
1,1,2-Trichloro-1,2,2-trifluoroetha ne	25.0	25.2		ug/L		101	70 - 133	
1,2,4-Trimethylbenzene	25.0	27.8		ug/L		111	75 - 115	
1,3,5-Trimethylbenzene	25.0	27.9		ug/L		111	77 - 117	
Vinyl acetate	25.0	28.5		ug/L		114	50 - 126	
Vinyl chloride	25.0	20.5		ug/L		82	58 - 138	
m-Xylene & p-Xylene	25.0	26.8		ug/L		107	74 - 119	
o-Xylene	25.0	26.8		ug/L		107	77 - 118	

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-257057/5

Matrix: Water

Analysis Batch: 257057

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	%Rec.			
	Added	Result	Qualifier	Unit	D	%Rec	Limits
2,2-Dichloropropane	25.0	28.4		ug/L		114	74 - 156
Surrogate							
4-Bromofluorobenzene							
108		67 - 130					
1,2-Dichloroethane-d4 (Surr)							
106		72 - 130					
Toluene-d8 (Surr)							
108		70 - 130					

Lab Sample ID: LCSD 720-257057/6

Matrix: Water

Analysis Batch: 257057

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	%Rec.			RPD	Limit	
	Added	Result	Qualifier	Unit	D	%Rec	RPD	Limit	
Methyl tert-butyl ether	25.0	27.7		ug/L		111	70 - 130	3	20
Acetone	125	135		ug/L		108	61 - 147	3	30
Benzene	25.0	26.0		ug/L		104	79 - 119	1	20
Dichlorobromomethane	25.0	26.6		ug/L		106	81 - 130	2	20
Bromobenzene	25.0	26.1		ug/L		105	77 - 117	1	20
Chlorobromomethane	25.0	24.4		ug/L		97	81 - 122	1	20
Bromoform	25.0	25.8		ug/L		103	75 - 127	1	20
Bromomethane	25.0	21.4		ug/L		86	70 - 132	2	20
2-Butanone (MEK)	125	132		ug/L		105	66 - 133	1	22
n-Butylbenzene	25.0	28.1		ug/L		112	78 - 119	3	20
sec-Butylbenzene	25.0	27.1		ug/L		108	78 - 118	1	20
tert-Butylbenzene	25.0	27.3		ug/L		109	78 - 118	2	20
Carbon disulfide	25.0	25.8		ug/L		103	64 - 127	0	20
Carbon tetrachloride	25.0	26.6		ug/L		107	72 - 142	0	20
Chlorobenzene	25.0	25.6		ug/L		103	76 - 116	0	20
Chloroethane	25.0	21.5		ug/L		86	70 - 131	3	20
Chloroform	25.0	25.5		ug/L		102	82 - 119	1	20
Chloromethane	25.0	21.0		ug/L		84	49 - 134	1	20
2-Chlorotoluene	25.0	27.2		ug/L		109	75 - 115	1	20
4-Chlorotoluene	25.0	27.4		ug/L		109	73 - 119	0	20
Chlorodibromomethane	25.0	26.7		ug/L		107	77 - 133	2	20
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	77 - 117	2	20
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	76 - 116	1	20
1,4-Dichlorobenzene	25.0	25.6		ug/L		102	76 - 116	0	20
1,3-Dichloropropane	25.0	26.2		ug/L		105	77 - 117	3	20
1,1-Dichloropropene	25.0	26.6		ug/L		106	83 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	26.1		ug/L		104	74 - 126	3	20
Ethylene Dibromide	25.0	25.9		ug/L		104	80 - 121	3	20
Dibromomethane	25.0	25.4		ug/L		102	79 - 117	0	20
Dichlorodifluoromethane	25.0	21.1		ug/L		84	21 - 150	2	20
1,1-Dichloroethane	25.0	26.7		ug/L		107	77 - 119	1	20
1,2-Dichloroethane	25.0	25.8		ug/L		103	73 - 122	1	20
1,1-Dichloroethene	25.0	24.9		ug/L		100	69 - 119	2	20
cis-1,2-Dichloroethene	25.0	25.9		ug/L		103	77 - 117	1	20
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	79 - 117	0	20
1,2-Dichloropropane	25.0	27.0		ug/L		108	79 - 119	2	20

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-257057/6

Matrix: Water

Analysis Batch: 257057

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				Limits		
cis-1,3-Dichloropropene	25.0	28.2		ug/L		113	82 - 119	3	20
trans-1,3-Dichloropropene	25.0	28.0		ug/L		112	76 - 122	2	20
Ethylbenzene	25.0	26.4		ug/L		106	77 - 117	0	20
Hexachlorobutadiene	25.0	28.6		ug/L		114	78 - 140	4	20
2-Hexanone	125	141		ug/L		113	63 - 140	2	24
Isopropylbenzene	25.0	27.3		ug/L		109	77 - 130	0	20
4-Isopropyltoluene	25.0	27.2		ug/L		109	80 - 120	2	20
Methylene Chloride	25.0	25.4		ug/L		101	75 - 117	2	20
4-Methyl-2-pentanone (MIBK)	125	138		ug/L		110	66 - 140	3	21
Naphthalene	25.0	27.0		ug/L		108	81 - 121	4	20
N-Propylbenzene	25.0	27.8		ug/L		111	77 - 117	1	20
Styrene	25.0	28.1		ug/L		113	76 - 116	0	20
1,1,1,2-Tetrachloroethane	25.0	26.4		ug/L		106	81 - 121	0	20
1,1,2,2-Tetrachloroethane	25.0	25.8		ug/L		103	70 - 115	0	20
Tetrachloroethene	25.0	25.9		ug/L		103	81 - 130	1	20
Toluene	25.0	26.2		ug/L		105	75 - 120	0	20
1,2,3-Trichlorobenzene	25.0	27.2		ug/L		109	87 - 123	4	20
1,2,4-Trichlorobenzene	25.0	27.8		ug/L		111	78 - 120	3	20
1,1,1-Trichloroethane	25.0	26.5		ug/L		106	74 - 130	0	20
1,1,2-Trichloroethane	25.0	26.2		ug/L		105	80 - 117	3	20
Trichloroethene	25.0	25.1		ug/L		100	80 - 123	0	20
Trichlorofluoromethane	25.0	26.0		ug/L		104	75 - 141	0	20
1,2,3-Trichloropropane	25.0	25.5		ug/L		102	77 - 120	0	20
1,1,2-Trichloro-1,2,2-trifluoroetha	25.0	25.3		ug/L		101	70 - 133	0	20
ne									
1,2,4-Trimethylbenzene	25.0	28.0		ug/L		112	75 - 115	1	20
1,3,5-Trimethylbenzene	25.0	28.2		ug/L		113	77 - 117	1	20
Vinyl acetate	25.0	27.8		ug/L		111	50 - 126	2	20
Vinyl chloride	25.0	20.3		ug/L		81	58 - 138	1	20
m-Xylene & p-Xylene	25.0	26.7		ug/L		107	74 - 119	0	20
o-Xylene	25.0	26.7		ug/L		107	77 - 118	0	20
2,2-Dichloropropane	25.0	28.2		ug/L		113	74 - 156	1	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	107		67 - 130
1,2-Dichloroethane-d4 (Surr)	104		72 - 130
Toluene-d8 (Surr)	106		70 - 130

Lab Sample ID: MB 720-257059/4

Matrix: Water

Analysis Batch: 257059

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methyl tert-butyl ether	ND		0.50		ug/L			12/17/18 10:36	1
Acetone	ND		50		ug/L			12/17/18 10:36	1
Benzene	ND		0.50		ug/L			12/17/18 10:36	1
Dichlorobromomethane	ND		0.50		ug/L			12/17/18 10:36	1
Bromobenzene	ND		1.0		ug/L			12/17/18 10:36	1

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-257059/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257059

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane			ND		1.0		ug/L			12/17/18 10:36	1
Bromoform			ND		1.0		ug/L			12/17/18 10:36	1
Bromomethane			ND		1.0		ug/L			12/17/18 10:36	1
2-Butanone (MEK)			ND		50		ug/L			12/17/18 10:36	1
n-Butylbenzene			ND		1.0		ug/L			12/17/18 10:36	1
sec-Butylbenzene			ND		1.0		ug/L			12/17/18 10:36	1
tert-Butylbenzene			ND		1.0		ug/L			12/17/18 10:36	1
Carbon disulfide			ND		5.0		ug/L			12/17/18 10:36	1
Carbon tetrachloride			ND		0.50		ug/L			12/17/18 10:36	1
Chlorobenzene			ND		0.50		ug/L			12/17/18 10:36	1
Chloroethane			ND		1.0		ug/L			12/17/18 10:36	1
Chloroform			ND		1.0		ug/L			12/17/18 10:36	1
Chloromethane			ND		1.0		ug/L			12/17/18 10:36	1
2-Chlorotoluene			ND		0.50		ug/L			12/17/18 10:36	1
4-Chlorotoluene			ND		0.50		ug/L			12/17/18 10:36	1
Chlorodibromomethane			ND		0.50		ug/L			12/17/18 10:36	1
1,2-Dichlorobenzene			ND		0.50		ug/L			12/17/18 10:36	1
1,3-Dichlorobenzene			ND		0.50		ug/L			12/17/18 10:36	1
1,4-Dichlorobenzene			ND		0.50		ug/L			12/17/18 10:36	1
1,3-Dichloropropane			ND		1.0		ug/L			12/17/18 10:36	1
1,1-Dichloropropene			ND		0.50		ug/L			12/17/18 10:36	1
1,2-Dibromo-3-Chloropropane			ND		1.0		ug/L			12/17/18 10:36	1
Ethylene Dibromide			ND		0.50		ug/L			12/17/18 10:36	1
Dibromomethane			ND		0.50		ug/L			12/17/18 10:36	1
Dichlorodifluoromethane			ND		0.50		ug/L			12/17/18 10:36	1
1,1-Dichloroethane			ND		0.50		ug/L			12/17/18 10:36	1
1,2-Dichloroethane			ND		0.50		ug/L			12/17/18 10:36	1
1,1-Dichloroethene			ND		0.50		ug/L			12/17/18 10:36	1
cis-1,2-Dichloroethene			ND		0.50		ug/L			12/17/18 10:36	1
trans-1,2-Dichloroethene			ND		0.50		ug/L			12/17/18 10:36	1
1,2-Dichloropropane			ND		0.50		ug/L			12/17/18 10:36	1
cis-1,3-Dichloropropene			ND		0.50		ug/L			12/17/18 10:36	1
trans-1,3-Dichloropropene			ND		0.50		ug/L			12/17/18 10:36	1
Ethylbenzene			ND		0.50		ug/L			12/17/18 10:36	1
Hexachlorobutadiene			ND		1.0		ug/L			12/17/18 10:36	1
2-Hexanone			ND		50		ug/L			12/17/18 10:36	1
Isopropylbenzene			ND		0.50		ug/L			12/17/18 10:36	1
4-Isopropyltoluene			ND		1.0		ug/L			12/17/18 10:36	1
Methylene Chloride			ND		5.0		ug/L			12/17/18 10:36	1
4-Methyl-2-pentanone (MIBK)			ND		50		ug/L			12/17/18 10:36	1
Naphthalene			ND		1.0		ug/L			12/17/18 10:36	1
N-Propylbenzene			ND		1.0		ug/L			12/17/18 10:36	1
Styrene			ND		0.50		ug/L			12/17/18 10:36	1
1,1,1,2-Tetrachloroethane			ND		0.50		ug/L			12/17/18 10:36	1
1,1,2,2-Tetrachloroethane			ND		0.50		ug/L			12/17/18 10:36	1
Tetrachloroethene			ND		0.50		ug/L			12/17/18 10:36	1
Toluene			ND		0.50		ug/L			12/17/18 10:36	1
1,2,3-Trichlorobenzene			ND		1.0		ug/L			12/17/18 10:36	1

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-257059/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257059

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND				1.0		ug/L			12/17/18 10:36	1
1,1,1-Trichloroethane	ND				0.50		ug/L			12/17/18 10:36	1
1,1,2-Trichloroethane	ND				0.50		ug/L			12/17/18 10:36	1
Trichloroethene	ND				0.50		ug/L			12/17/18 10:36	1
Trichlorofluoromethane	ND				1.0		ug/L			12/17/18 10:36	1
1,2,3-Trichloropropane	ND				1.0		ug/L			12/17/18 10:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				0.50		ug/L			12/17/18 10:36	1
1,2,4-Trimethylbenzene	ND				0.50		ug/L			12/17/18 10:36	1
1,3,5-Trimethylbenzene	ND				0.50		ug/L			12/17/18 10:36	1
Vinyl acetate	ND				10		ug/L			12/17/18 10:36	1
Vinyl chloride	ND				0.50		ug/L			12/17/18 10:36	1
Xylenes, Total	ND				0.50		ug/L			12/17/18 10:36	1
2,2-Dichloropropane	ND				0.50		ug/L			12/17/18 10:36	1
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Surrogate	MB	MB	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	93				67 - 130				12/17/18 10:36	1	
1,2-Dichloroethane-d4 (Surr)	105				72 - 130				12/17/18 10:36	1	
Toluene-d8 (Surr)	100				70 - 130				12/17/18 10:36	1	

Lab Sample ID: LCS 720-257059/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257059

Analyte	Spike	LCS	LCS	%Rec.			
	Added	Result	Qualifier	Unit	D	%Rec	Limits
Methyl tert-butyl ether	25.0	26.3		ug/L		105	70 - 130
Acetone	125	126		ug/L		101	61 - 147
Benzene	25.0	25.4		ug/L		102	79 - 119
Dichlorobromomethane	25.0	26.5		ug/L		106	81 - 130
Bromobenzene	25.0	25.3		ug/L		101	77 - 117
Chlorobromomethane	25.0	26.5		ug/L		106	81 - 122
Bromoform	25.0	26.7		ug/L		107	75 - 127
Bromomethane	25.0	23.3		ug/L		93	70 - 132
2-Butanone (MEK)	125	135		ug/L		108	66 - 133
n-Butylbenzene	25.0	28.7		ug/L		115	78 - 119
sec-Butylbenzene	25.0	28.3		ug/L		113	78 - 118
tert-Butylbenzene	25.0	27.2		ug/L		109	78 - 118
Carbon disulfide	25.0	26.4		ug/L		106	64 - 127
Carbon tetrachloride	25.0	26.2		ug/L		105	72 - 142
Chlorobenzene	25.0	25.9		ug/L		103	76 - 116
Chloroethane	25.0	24.0		ug/L		96	70 - 131
Chloroform	25.0	26.2		ug/L		105	82 - 119
Chloromethane	25.0	23.9		ug/L		96	49 - 134
2-Chlorotoluene	25.0	26.3		ug/L		105	75 - 115
4-Chlorotoluene	25.0	26.5		ug/L		106	73 - 119
Chlorodibromomethane	25.0	27.1		ug/L		108	77 - 133
1,2-Dichlorobenzene	25.0	25.2		ug/L		101	77 - 117
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	76 - 116
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	76 - 116

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-257059/5

Matrix: Water

Analysis Batch: 257059

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
1,3-Dichloropropane	25.0	26.3		ug/L		105	77 - 117
1,1-Dichloropropene	25.0	26.8		ug/L		107	83 - 130
1,2-Dibromo-3-Chloropropane	25.0	26.6		ug/L		107	74 - 126
Ethylene Dibromide	25.0	27.3		ug/L		109	80 - 121
Dibromomethane	25.0	26.3		ug/L		105	79 - 117
Dichlorodifluoromethane	25.0	24.0		ug/L		96	21 - 150
1,1-Dichloroethane	25.0	26.2		ug/L		105	77 - 119
1,2-Dichloroethane	25.0	25.8		ug/L		103	73 - 122
1,1-Dichloroethene	25.0	25.0		ug/L		100	69 - 119
cis-1,2-Dichloroethene	25.0	26.4		ug/L		105	77 - 117
trans-1,2-Dichloroethene	25.0	26.0		ug/L		104	79 - 117
1,2-Dichloropropane	25.0	26.2		ug/L		105	79 - 119
cis-1,3-Dichloropropene	25.0	26.8		ug/L		107	82 - 119
trans-1,3-Dichloropropene	25.0	27.9		ug/L		112	76 - 122
Ethylbenzene	25.0	27.4		ug/L		110	77 - 117
Hexachlorobutadiene	25.0	25.7		ug/L		103	78 - 140
2-Hexanone	125	140		ug/L		112	63 - 140
Isopropylbenzene	25.0	29.0		ug/L		116	77 - 130
4-Isopropyltoluene	25.0	28.0		ug/L		112	80 - 120
Methylene Chloride	25.0	25.8		ug/L		103	75 - 117
4-Methyl-2-pentanone (MIBK)	125	140		ug/L		112	66 - 140
Naphthalene	25.0	27.6		ug/L		110	81 - 121
N-Propylbenzene	25.0	28.3		ug/L		113	77 - 117
Styrene	25.0	28.7		ug/L		115	76 - 116
1,1,1,2-Tetrachloroethane	25.0	26.4		ug/L		105	81 - 121
1,1,2,2-Tetrachloroethane	25.0	25.0		ug/L		100	70 - 115
Tetrachloroethene	25.0	27.0		ug/L		108	81 - 130
Toluene	25.0	24.1		ug/L		96	75 - 120
1,2,3-Trichlorobenzene	25.0	26.4		ug/L		105	87 - 123
1,2,4-Trichlorobenzene	25.0	27.0		ug/L		108	78 - 120
1,1,1-Trichloroethane	25.0	26.4		ug/L		106	74 - 130
1,1,2-Trichloroethane	25.0	26.7		ug/L		107	80 - 117
Trichloroethene	25.0	26.8		ug/L		107	80 - 123
Trichlorofluoromethane	25.0	24.6		ug/L		99	75 - 141
1,2,3-Trichloropropane	25.0	25.8		ug/L		103	77 - 120
1,1,2-Trichloro-1,2,2-trifluoroetha ne	25.0	26.4		ug/L		106	70 - 133
1,2,4-Trimethylbenzene	25.0	28.3		ug/L		113	75 - 115
1,3,5-Trimethylbenzene	25.0	27.8		ug/L		111	77 - 117
Vinyl acetate	25.0	27.9		ug/L		112	50 - 126
Vinyl chloride	25.0	23.8		ug/L		95	58 - 138
m-Xylene & p-Xylene	25.0	27.2		ug/L		109	74 - 119
o-Xylene	25.0	27.5		ug/L		110	77 - 118
2,2-Dichloropropane	25.0	28.1		ug/L		112	74 - 156

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		72 - 130

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-257059/5

Matrix: Water

Analysis Batch: 257059

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
Toluene-d8 (Sur)			103		70 - 130

Lab Sample ID: LCSD 720-257059/6

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257059

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Methyl tert-butyl ether	25.0	26.3		ug/L		105	70 - 130	0	20
Acetone	125	133		ug/L		106	61 - 147	5	30
Benzene	25.0	25.4		ug/L		101	79 - 119	0	20
Dichlorobromomethane	25.0	26.3		ug/L		105	81 - 130	1	20
Bromobenzene	25.0	25.4		ug/L		101	77 - 117	0	20
Chlorobromomethane	25.0	26.3		ug/L		105	81 - 122	1	20
Bromoform	25.0	27.2		ug/L		109	75 - 127	2	20
Bromomethane	25.0	23.9		ug/L		96	70 - 132	2	20
2-Butanone (MEK)	125	136		ug/L		109	66 - 133	1	22
n-Butylbenzene	25.0	28.7		ug/L		115	78 - 119	0	20
sec-Butylbenzene	25.0	28.3		ug/L		113	78 - 118	0	20
tert-Butylbenzene	25.0	27.5		ug/L		110	78 - 118	1	20
Carbon disulfide	25.0	25.9		ug/L		104	64 - 127	2	20
Carbon tetrachloride	25.0	26.0		ug/L		104	72 - 142	1	20
Chlorobenzene	25.0	26.0		ug/L		104	76 - 116	1	20
Chloroethane	25.0	24.8		ug/L		99	70 - 131	3	20
Chloroform	25.0	25.8		ug/L		103	82 - 119	2	20
Chloromethane	25.0	24.0		ug/L		96	49 - 134	0	20
2-Chlorotoluene	25.0	26.3		ug/L		105	75 - 115	0	20
4-Chlorotoluene	25.0	26.6		ug/L		106	73 - 119	0	20
Chlorodibromomethane	25.0	27.4		ug/L		110	77 - 133	1	20
1,2-Dichlorobenzene	25.0	25.6		ug/L		103	77 - 117	2	20
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	76 - 116	0	20
1,4-Dichlorobenzene	25.0	25.9		ug/L		104	76 - 116	1	20
1,3-Dichloropropane	25.0	26.4		ug/L		106	77 - 117	1	20
1,1-Dichloropropene	25.0	26.6		ug/L		106	83 - 130	1	20
1,2-Dibromo-3-Chloropropane	25.0	27.7		ug/L		111	74 - 126	4	20
Ethylene Dibromide	25.0	27.3		ug/L		109	80 - 121	0	20
Dibromomethane	25.0	26.2		ug/L		105	79 - 117	0	20
Dichlorodifluoromethane	25.0	23.7		ug/L		95	21 - 150	1	20
1,1-Dichloroethane	25.0	26.1		ug/L		104	77 - 119	0	20
1,2-Dichloroethane	25.0	25.4		ug/L		102	73 - 122	1	20
1,1-Dichloroethene	25.0	25.2		ug/L		101	69 - 119	1	20
cis-1,2-Dichloroethene	25.0	26.2		ug/L		105	77 - 117	1	20
trans-1,2-Dichloroethene	25.0	25.5		ug/L		102	79 - 117	2	20
1,2-Dichloropropane	25.0	26.1		ug/L		104	79 - 119	0	20
cis-1,3-Dichloropropene	25.0	27.4		ug/L		109	82 - 119	2	20
trans-1,3-Dichloropropene	25.0	28.0		ug/L		112	76 - 122	0	20
Ethylbenzene	25.0	27.4		ug/L		110	77 - 117	0	20
Hexachlorobutadiene	25.0	26.0		ug/L		104	78 - 140	1	20
2-Hexanone	125	142		ug/L		114	63 - 140	1	24

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-257059/6

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 257059

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Added	Result	Qualifier				Limits		
Isopropylbenzene	25.0	28.9		ug/L		116	77 - 130	0	20
4-Isopropyltoluene	25.0	28.0		ug/L		112	80 - 120	0	20
Methylene Chloride	25.0	25.9		ug/L		103	75 - 117	0	20
4-Methyl-2-pentanone (MIBK)	125	141		ug/L		113	66 - 140	1	21
Naphthalene	25.0	28.3		ug/L		113	81 - 121	3	20
N-Propylbenzene	25.0	28.2		ug/L		113	77 - 117	0	20
Styrene	25.0	28.5		ug/L		114	76 - 116	1	20
1,1,1,2-Tetrachloroethane	25.0	26.6		ug/L		106	81 - 121	1	20
1,1,2,2-Tetrachloroethane	25.0	25.4		ug/L		101	70 - 115	1	20
Tetrachloroethene	25.0	26.4		ug/L		106	81 - 130	2	20
Toluene	25.0	24.3		ug/L		97	75 - 120	1	20
1,2,3-Trichlorobenzene	25.0	26.9		ug/L		108	87 - 123	2	20
1,2,4-Trichlorobenzene	25.0	27.6		ug/L		110	78 - 120	2	20
1,1,1-Trichloroethane	25.0	26.2		ug/L		105	74 - 130	1	20
1,1,2-Trichloroethane	25.0	26.5		ug/L		106	80 - 117	0	20
Trichloroethene	25.0	26.6		ug/L		106	80 - 123	1	20
Trichlorofluoromethane	25.0	23.1		ug/L		92	75 - 141	7	20
1,2,3-Trichloropropane	25.0	26.4		ug/L		106	77 - 120	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.2		ug/L		105	70 - 133	1	20
1,2,4-Trimethylbenzene	25.0	28.2		ug/L		113	75 - 115	0	20
1,3,5-Trimethylbenzene	25.0	28.0		ug/L		112	77 - 117	1	20
Vinyl acetate	25.0	27.5		ug/L		110	50 - 126	1	20
Vinyl chloride	25.0	22.9		ug/L		92	58 - 138	4	20
m-Xylene & p-Xylene	25.0	27.2		ug/L		109	74 - 119	0	20
o-Xylene	25.0	27.5		ug/L		110	77 - 118	0	20
2,2-Dichloropropane	25.0	27.0		ug/L		108	74 - 156	4	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	104		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		72 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: MB 720-257144/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257144

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methyl tert-butyl ether	ND		0.50		ug/L			12/18/18 10:21	1
Acetone	ND		50		ug/L			12/18/18 10:21	1
Benzene	ND		0.50		ug/L			12/18/18 10:21	1
Dichlorobromomethane	ND		0.50		ug/L			12/18/18 10:21	1
Bromobenzene	ND		1.0		ug/L			12/18/18 10:21	1
Chlorobromomethane	ND		1.0		ug/L			12/18/18 10:21	1
Bromoform	ND		1.0		ug/L			12/18/18 10:21	1
Bromomethane	ND		1.0		ug/L			12/18/18 10:21	1
2-Butanone (MEK)	ND		50		ug/L			12/18/18 10:21	1
n-Butylbenzene	ND		1.0		ug/L			12/18/18 10:21	1

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-257144/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257144

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		ND		1.0		ug/L			12/18/18 10:21	1
tert-Butylbenzene	ND		ND		1.0		ug/L			12/18/18 10:21	1
Carbon disulfide	ND		ND		5.0		ug/L			12/18/18 10:21	1
Carbon tetrachloride	ND		ND		0.50		ug/L			12/18/18 10:21	1
Chlorobenzene	ND		ND		0.50		ug/L			12/18/18 10:21	1
Chloroethane	ND		ND		1.0		ug/L			12/18/18 10:21	1
Chloroform	ND		ND		1.0		ug/L			12/18/18 10:21	1
Chloromethane	ND		ND		1.0		ug/L			12/18/18 10:21	1
2-Chlorotoluene	ND		ND		0.50		ug/L			12/18/18 10:21	1
4-Chlorotoluene	ND		ND		0.50		ug/L			12/18/18 10:21	1
Chlorodibromomethane	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,2-Dichlorobenzene	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,3-Dichlorobenzene	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,4-Dichlorobenzene	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,3-Dichloropropane	ND		ND		1.0		ug/L			12/18/18 10:21	1
1,1-Dichloropropene	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,2-Dibromo-3-Chloropropane	ND		ND		1.0		ug/L			12/18/18 10:21	1
Ethylene Dibromide	ND		ND		0.50		ug/L			12/18/18 10:21	1
Dibromomethane	ND		ND		0.50		ug/L			12/18/18 10:21	1
Dichlorodifluoromethane	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,1-Dichloroethane	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,2-Dichloroethane	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,1-Dichloroethene	ND		ND		0.50		ug/L			12/18/18 10:21	1
cis-1,2-Dichloroethene	ND		ND		0.50		ug/L			12/18/18 10:21	1
trans-1,2-Dichloroethene	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,2-Dichloropropane	ND		ND		0.50		ug/L			12/18/18 10:21	1
cis-1,3-Dichloropropene	ND		ND		0.50		ug/L			12/18/18 10:21	1
trans-1,3-Dichloropropene	ND		ND		0.50		ug/L			12/18/18 10:21	1
Ethylbenzene	ND		ND		0.50		ug/L			12/18/18 10:21	1
Hexachlorobutadiene	ND		ND		1.0		ug/L			12/18/18 10:21	1
2-Hexanone	ND		ND		50		ug/L			12/18/18 10:21	1
Isopropylbenzene	ND		ND		0.50		ug/L			12/18/18 10:21	1
4-Isopropyltoluene	ND		ND		1.0		ug/L			12/18/18 10:21	1
Methylene Chloride	ND		ND		5.0		ug/L			12/18/18 10:21	1
4-Methyl-2-pentanone (MIBK)	ND		ND		50		ug/L			12/18/18 10:21	1
Naphthalene	ND		ND		1.0		ug/L			12/18/18 10:21	1
N-Propylbenzene	ND		ND		1.0		ug/L			12/18/18 10:21	1
Styrene	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,1,1,2-Tetrachloroethane	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,1,2,2-Tetrachloroethane	ND		ND		0.50		ug/L			12/18/18 10:21	1
Tetrachloroethene	ND		ND		0.50		ug/L			12/18/18 10:21	1
Toluene	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,2,3-Trichlorobenzene	ND		ND		1.0		ug/L			12/18/18 10:21	1
1,2,4-Trichlorobenzene	ND		ND		1.0		ug/L			12/18/18 10:21	1
1,1,1-Trichloroethane	ND		ND		0.50		ug/L			12/18/18 10:21	1
1,1,2-Trichloroethane	ND		ND		0.50		ug/L			12/18/18 10:21	1
Trichloroethene	ND		ND		0.50		ug/L			12/18/18 10:21	1
Trichlorofluoromethane	ND		ND		1.0		ug/L			12/18/18 10:21	1

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-257144/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257144

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0		ug/L			12/18/18 10:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			12/18/18 10:21	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/18/18 10:21	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/18/18 10:21	1
Vinyl acetate	ND		10		ug/L			12/18/18 10:21	1
Vinyl chloride	ND		0.50		ug/L			12/18/18 10:21	1
Xylenes, Total	ND		0.50		ug/L			12/18/18 10:21	1
2,2-Dichloropropane	ND		0.50		ug/L			12/18/18 10:21	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 130		12/18/18 10:21	1
1,2-Dichloroethane-d4 (Surr)	107		72 - 130		12/18/18 10:21	1
Toluene-d8 (Surr)	101		70 - 130		12/18/18 10:21	1

Lab Sample ID: LCS 720-257144/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257144

Spike

Analyte	Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Methyl tert-butyl ether	25.0	24.9		ug/L		100	70 - 130	
Acetone	125	128		ug/L		102	61 - 147	
Benzene	25.0	25.4		ug/L		101	79 - 119	
Dichlorobromomethane	25.0	26.0		ug/L		104	81 - 130	
Bromobenzene	25.0	25.2		ug/L		101	77 - 117	
Chlorobromomethane	25.0	25.8		ug/L		103	81 - 122	
Bromoform	25.0	25.4		ug/L		102	75 - 127	
Bromomethane	25.0	22.7		ug/L		91	70 - 132	
2-Butanone (MEK)	125	118		ug/L		94	66 - 133	
n-Butylbenzene	25.0	29.3		ug/L		117	78 - 119	
sec-Butylbenzene	25.0	28.8		ug/L		115	78 - 118	
tert-Butylbenzene	25.0	27.7		ug/L		111	78 - 118	
Carbon disulfide	25.0	26.1		ug/L		104	64 - 127	
Carbon tetrachloride	25.0	25.9		ug/L		104	72 - 142	
Chlorobenzene	25.0	26.0		ug/L		104	76 - 116	
Chloroethane	25.0	25.1		ug/L		101	70 - 131	
Chloroform	25.0	25.9		ug/L		104	82 - 119	
Chloromethane	25.0	24.1		ug/L		97	49 - 134	
2-Chlorotoluene	25.0	27.0		ug/L		108	75 - 115	
4-Chlorotoluene	25.0	27.2		ug/L		109	73 - 119	
Chlorodibromomethane	25.0	26.1		ug/L		104	77 - 133	
1,2-Dichlorobenzene	25.0	25.3		ug/L		101	77 - 117	
1,3-Dichlorobenzene	25.0	25.8		ug/L		103	76 - 116	
1,4-Dichlorobenzene	25.0	25.9		ug/L		104	76 - 116	
1,3-Dichloropropane	25.0	25.6		ug/L		102	77 - 117	
1,1-Dichloropropene	25.0	26.8		ug/L		107	83 - 130	
1,2-Dibromo-3-Chloropropane	25.0	25.2		ug/L		101	74 - 126	
Ethylene Dibromide	25.0	26.4		ug/L		106	80 - 121	
Dibromomethane	25.0	25.6		ug/L		102	79 - 117	

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-257144/5

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 257144

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				Limits
Dichlorodifluoromethane	25.0	22.8		ug/L	91	21 - 150	
1,1-Dichloroethane	25.0	25.9		ug/L	104	77 - 119	
1,2-Dichloroethane	25.0	25.4		ug/L	102	73 - 122	
1,1-Dichloroethene	25.0	25.0		ug/L	100	69 - 119	
cis-1,2-Dichloroethene	25.0	26.2		ug/L	105	77 - 117	
trans-1,2-Dichloroethene	25.0	25.6		ug/L	102	79 - 117	
1,2-Dichloropropane	25.0	26.2		ug/L	105	79 - 119	
cis-1,3-Dichloropropene	25.0	26.8		ug/L	107	82 - 119	
trans-1,3-Dichloropropene	25.0	27.0		ug/L	108	76 - 122	
Ethylbenzene	25.0	27.8		ug/L	111	77 - 117	
Hexachlorobutadiene	25.0	24.9		ug/L	100	78 - 140	
2-Hexanone	125	128		ug/L	103	63 - 140	
Isopropylbenzene	25.0	29.2		ug/L	117	77 - 130	
4-Isopropyltoluene	25.0	28.5		ug/L	114	80 - 120	
Methylene Chloride	25.0	25.9		ug/L	104	75 - 117	
4-Methyl-2-pentanone (MIBK)	125	129		ug/L	103	66 - 140	
Naphthalene	25.0	25.8		ug/L	103	81 - 121	
N-Propylbenzene	25.0	29.0		ug/L	116	77 - 117	
Styrene	25.0	28.6		ug/L	114	76 - 116	
1,1,1,2-Tetrachloroethane	25.0	26.3		ug/L	105	81 - 121	
1,1,2,2-Tetrachloroethane	25.0	24.2		ug/L	97	70 - 115	
Tetrachloroethene	25.0	26.3		ug/L	105	81 - 130	
Toluene	25.0	24.4		ug/L	98	75 - 120	
1,2,3-Trichlorobenzene	25.0	25.1		ug/L	100	87 - 123	
1,2,4-Trichlorobenzene	25.0	26.2		ug/L	105	78 - 120	
1,1,1-Trichloroethane	25.0	26.5		ug/L	106	74 - 130	
1,1,2-Trichloroethane	25.0	25.6		ug/L	102	80 - 117	
Trichloroethene	25.0	26.7		ug/L	107	80 - 123	
Trichlorofluoromethane	25.0	26.3		ug/L	105	75 - 141	
1,2,3-Trichloropropane	25.0	25.0		ug/L	100	77 - 120	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.2		ug/L	105	70 - 133	
1,2,4-Trimethylbenzene	25.0	28.7		ug/L	115	75 - 115	
1,3,5-Trimethylbenzene	25.0	28.5		ug/L	114	77 - 117	
Vinyl acetate	25.0	26.2		ug/L	105	50 - 126	
Vinyl chloride	25.0	23.8		ug/L	95	58 - 138	
m-Xylene & p-Xylene	25.0	27.3		ug/L	109	74 - 119	
o-Xylene	25.0	28.2		ug/L	113	77 - 118	
2,2-Dichloropropane	25.0	28.1		ug/L	112	74 - 156	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromoiodobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	97		72 - 130
Toluene-d8 (Surr)	103		70 - 130

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-257144/6

Matrix: Water

Analysis Batch: 257144

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	25.0		ug/L	100	70 - 130	1	20	
Acetone	125	123		ug/L	99	61 - 147	4	30	
Benzene	25.0	25.4		ug/L	102	79 - 119	0	20	
Dichlorobromomethane	25.0	26.1		ug/L	104	81 - 130	0	20	
Bromobenzene	25.0	25.2		ug/L	101	77 - 117	0	20	
Chlorobromomethane	25.0	26.0		ug/L	104	81 - 122	1	20	
Bromoform	25.0	25.0		ug/L	100	75 - 127	1	20	
Bromomethane	25.0	23.5		ug/L	94	70 - 132	3	20	
2-Butanone (MEK)	125	123		ug/L	98	66 - 133	4	22	
n-Butylbenzene	25.0	29.4		ug/L	118	78 - 119	0	20	
sec-Butylbenzene	25.0	29.2		ug/L	117	78 - 118	1	20	
tert-Butylbenzene	25.0	28.2		ug/L	113	78 - 118	2	20	
Carbon disulfide	25.0	25.9		ug/L	104	64 - 127	1	20	
Carbon tetrachloride	25.0	26.0		ug/L	104	72 - 142	1	20	
Chlorobenzene	25.0	26.1		ug/L	105	76 - 116	0	20	
Chloroethane	25.0	25.2		ug/L	101	70 - 131	0	20	
Chloroform	25.0	26.0		ug/L	104	82 - 119	0	20	
Chloromethane	25.0	23.7		ug/L	95	49 - 134	2	20	
2-Chlorotoluene	25.0	27.2		ug/L	109	75 - 115	1	20	
4-Chlorotoluene	25.0	27.3		ug/L	109	73 - 119	1	20	
Chlorodibromomethane	25.0	26.0		ug/L	104	77 - 133	0	20	
1,2-Dichlorobenzene	25.0	25.5		ug/L	102	77 - 117	1	20	
1,3-Dichlorobenzene	25.0	25.9		ug/L	104	76 - 116	0	20	
1,4-Dichlorobenzene	25.0	25.9		ug/L	104	76 - 116	0	20	
1,3-Dichloropropane	25.0	25.5		ug/L	102	77 - 117	0	20	
1,1-Dichloropropene	25.0	27.1		ug/L	108	83 - 130	1	20	
1,2-Dibromo-3-Chloropropane	25.0	25.0		ug/L	100	74 - 126	1	20	
Ethylene Dibromide	25.0	26.0		ug/L	104	80 - 121	2	20	
Dibromomethane	25.0	25.3		ug/L	101	79 - 117	1	20	
Dichlorodifluoromethane	25.0	22.6		ug/L	90	21 - 150	1	20	
1,1-Dichloroethane	25.0	25.8		ug/L	103	77 - 119	0	20	
1,2-Dichloroethane	25.0	25.4		ug/L	102	73 - 122	0	20	
1,1-Dichloroethene	25.0	25.0		ug/L	100	69 - 119	0	20	
cis-1,2-Dichloroethene	25.0	26.2		ug/L	105	77 - 117	0	20	
trans-1,2-Dichloroethene	25.0	26.0		ug/L	104	79 - 117	2	20	
1,2-Dichloropropene	25.0	25.8		ug/L	103	79 - 119	1	20	
cis-1,3-Dichloropropene	25.0	26.7		ug/L	107	82 - 119	0	20	
trans-1,3-Dichloropropene	25.0	26.5		ug/L	106	76 - 122	2	20	
Ethylbenzene	25.0	27.6		ug/L	110	77 - 117	1	20	
Hexachlorobutadiene	25.0	24.9		ug/L	99	78 - 140	0	20	
2-Hexanone	125	126		ug/L	101	63 - 140	2	24	
Isopropylbenzene	25.0	29.4		ug/L	118	77 - 130	1	20	
4-Isopropyltoluene	25.0	28.6		ug/L	115	80 - 120	0	20	
Methylene Chloride	25.0	25.9		ug/L	103	75 - 117	0	20	
4-Methyl-2-pentanone (MIBK)	125	126		ug/L	101	66 - 140	2	21	
Naphthalene	25.0	25.4		ug/L	102	81 - 121	2	20	
N-Propylbenzene	25.0	29.1		ug/L	116	77 - 117	0	20	
Styrene	25.0	28.6		ug/L	115	76 - 116	0	20	

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-257144/6

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257144

Analyte	Spike	LCSD		Unit	D	%Rec	%Rec.		RPD	Limit
	Added	Result	Qualifier				Limits	RPD		
1,1,1,2-Tetrachloroethane	25.0	26.4		ug/L		105	81 - 121	0	20	
1,1,2,2-Tetrachloroethane	25.0	24.7		ug/L		99	70 - 115	2	20	
Tetrachloroethene	25.0	26.1		ug/L		104	81 - 130	1	20	
Toluene	25.0	24.3		ug/L		97	75 - 120	1	20	
1,2,3-Trichlorobenzene	25.0	24.7		ug/L		99	87 - 123	2	20	
1,2,4-Trichlorobenzene	25.0	25.4		ug/L		102	78 - 120	3	20	
1,1,1-Trichloroethane	25.0	26.3		ug/L		105	74 - 130	1	20	
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	80 - 117	1	20	
Trichloroethene	25.0	25.9		ug/L		104	80 - 123	3	20	
Trichlorofluoromethane	25.0	26.9		ug/L		108	75 - 141	2	20	
1,2,3-Trichloropropane	25.0	24.8		ug/L		99	77 - 120	1	20	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.0		ug/L		104	70 - 133	1	20	
1,2,4-Trimethylbenzene	25.0	29.3 *		ug/L		117	75 - 115	2	20	
1,3,5-Trimethylbenzene	25.0	28.8		ug/L		115	77 - 117	1	20	
Vinyl acetate	25.0	26.4		ug/L		105	50 - 126	1	20	
Vinyl chloride	25.0	22.6		ug/L		90	58 - 138	5	20	
m-Xylene & p-Xylene	25.0	27.4		ug/L		110	74 - 119	0	20	
o-Xylene	25.0	27.7		ug/L		111	77 - 118	2	20	
2,2-Dichloropropane	25.0	27.1		ug/L		108	74 - 156	4	20	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	100		72 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: MB 720-257216/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257216

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methyl tert-butyl ether	ND		0.50		ug/L			12/19/18 10:07	1
Acetone	ND		50		ug/L			12/19/18 10:07	1
Benzene	ND		0.50		ug/L			12/19/18 10:07	1
Dichlorobromomethane	ND		0.50		ug/L			12/19/18 10:07	1
Bromobenzene	ND		1.0		ug/L			12/19/18 10:07	1
Chlorobromomethane	ND		1.0		ug/L			12/19/18 10:07	1
Bromoform	ND		1.0		ug/L			12/19/18 10:07	1
Bromomethane	ND		1.0		ug/L			12/19/18 10:07	1
2-Butanone (MEK)	ND		50		ug/L			12/19/18 10:07	1
n-Butylbenzene	ND		1.0		ug/L			12/19/18 10:07	1
sec-Butylbenzene	ND		1.0		ug/L			12/19/18 10:07	1
tert-Butylbenzene	ND		1.0		ug/L			12/19/18 10:07	1
Carbon disulfide	ND		5.0		ug/L			12/19/18 10:07	1
Carbon tetrachloride	ND		0.50		ug/L			12/19/18 10:07	1
Chlorobenzene	ND		0.50		ug/L			12/19/18 10:07	1
Chloroethane	ND		1.0		ug/L			12/19/18 10:07	1
Chloroform	ND		1.0		ug/L			12/19/18 10:07	1

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-257216/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257216

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane			ND		1.0		ug/L			12/19/18 10:07	1
2-Chlorotoluene			ND		0.50		ug/L			12/19/18 10:07	1
4-Chlorotoluene			ND		0.50		ug/L			12/19/18 10:07	1
Chlorodibromomethane			ND		0.50		ug/L			12/19/18 10:07	1
1,2-Dichlorobenzene			ND		0.50		ug/L			12/19/18 10:07	1
1,3-Dichlorobenzene			ND		0.50		ug/L			12/19/18 10:07	1
1,4-Dichlorobenzene			ND		0.50		ug/L			12/19/18 10:07	1
1,3-Dichloropropane			ND		1.0		ug/L			12/19/18 10:07	1
1,1-Dichloropropene			ND		0.50		ug/L			12/19/18 10:07	1
1,2-Dibromo-3-Chloropropane			ND		1.0		ug/L			12/19/18 10:07	1
Ethylene Dibromide			ND		0.50		ug/L			12/19/18 10:07	1
Dibromomethane			ND		0.50		ug/L			12/19/18 10:07	1
Dichlorodifluoromethane			ND		0.50		ug/L			12/19/18 10:07	1
1,1-Dichloroethane			ND		0.50		ug/L			12/19/18 10:07	1
1,2-Dichloroethane			ND		0.50		ug/L			12/19/18 10:07	1
1,1-Dichloroethene			ND		0.50		ug/L			12/19/18 10:07	1
cis-1,2-Dichloroethene			ND		0.50		ug/L			12/19/18 10:07	1
trans-1,2-Dichloroethene			ND		0.50		ug/L			12/19/18 10:07	1
1,2-Dichloropropane			ND		0.50		ug/L			12/19/18 10:07	1
cis-1,3-Dichloropropene			ND		0.50		ug/L			12/19/18 10:07	1
trans-1,3-Dichloropropene			ND		0.50		ug/L			12/19/18 10:07	1
Ethylbenzene			ND		0.50		ug/L			12/19/18 10:07	1
Hexachlorobutadiene			ND		1.0		ug/L			12/19/18 10:07	1
2-Hexanone			ND		50		ug/L			12/19/18 10:07	1
Isopropylbenzene			ND		0.50		ug/L			12/19/18 10:07	1
4-Isopropyltoluene			ND		1.0		ug/L			12/19/18 10:07	1
Methylene Chloride			ND		5.0		ug/L			12/19/18 10:07	1
4-Methyl-2-pentanone (MIBK)			ND		50		ug/L			12/19/18 10:07	1
Naphthalene			ND		1.0		ug/L			12/19/18 10:07	1
N-Propylbenzene			ND		1.0		ug/L			12/19/18 10:07	1
Styrene			ND		0.50		ug/L			12/19/18 10:07	1
1,1,1,2-Tetrachloroethane			ND		0.50		ug/L			12/19/18 10:07	1
1,1,2,2-Tetrachloroethane			ND		0.50		ug/L			12/19/18 10:07	1
Tetrachloroethene			ND		0.50		ug/L			12/19/18 10:07	1
Toluene			ND		0.50		ug/L			12/19/18 10:07	1
1,2,3-Trichlorobenzene			ND		1.0		ug/L			12/19/18 10:07	1
1,2,4-Trichlorobenzene			ND		1.0		ug/L			12/19/18 10:07	1
1,1,1-Trichloroethane			ND		0.50		ug/L			12/19/18 10:07	1
1,1,2-Trichloroethane			ND		0.50		ug/L			12/19/18 10:07	1
Trichloroethene			ND		0.50		ug/L			12/19/18 10:07	1
Trichlorofluoromethane			ND		1.0		ug/L			12/19/18 10:07	1
1,2,3-Trichloropropane			ND		1.0		ug/L			12/19/18 10:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane			ND		0.50		ug/L			12/19/18 10:07	1
1,2,4-Trimethylbenzene			ND		0.50		ug/L			12/19/18 10:07	1
1,3,5-Trimethylbenzene			ND		0.50		ug/L			12/19/18 10:07	1
Vinyl acetate			ND		10		ug/L			12/19/18 10:07	1
Vinyl chloride			ND		0.50		ug/L			12/19/18 10:07	1
Xylenes, Total			ND		0.50		ug/L			12/19/18 10:07	1

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-257216/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257216

MB MB

Analyte	Result	Qualifier
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RL

MDL	Unit
-----	------

D

Prepared

Analyzed

Dil Fac

2,2-Dichloropropane

ND

0.50

ug/L

12/19/18 10:07

1

MB MB

Surrogate	%Recovery	Qualifier
-----------	-----------	-----------

Limits

Prepared

Analyzed

Dil Fac

4-Bromofluorobenzene

99

67 - 130

12/19/18 10:07

1

1,2-Dichloroethane-d4 (Surr)

103

72 - 130

12/19/18 10:07

1

Toluene-d8 (Surr)

98

70 - 130

12/19/18 10:07

1

Lab Sample ID: LCS 720-257216/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 257216

Spike

LCS LCS

Added

Result

Qualifier

Unit

D

%Rec

%Rec.

Limits

Methyl tert-butyl ether

25.0

25.1

ug/L

100

70 - 130

Acetone

125

119

ug/L

95

61 - 147

Benzene

25.0

26.1

ug/L

105

79 - 119

Dichlorobromomethane

25.0

28.1

ug/L

112

81 - 130

Bromobenzene

25.0

26.0

ug/L

104

77 - 117

Chlorobromomethane

25.0

26.4

ug/L

106

81 - 122

Bromoform

25.0

27.1

ug/L

108

75 - 127

Bromomethane

25.0

24.8

ug/L

99

70 - 132

2-Butanone (MEK)

125

120

ug/L

96

66 - 133

n-Butylbenzene

25.0

26.6

ug/L

107

78 - 119

sec-Butylbenzene

25.0

26.2

ug/L

105

78 - 118

tert-Butylbenzene

25.0

25.8

ug/L

103

78 - 118

Carbon disulfide

25.0

27.7

ug/L

111

64 - 127

Carbon tetrachloride

25.0

26.7

ug/L

107

72 - 142

Chlorobenzene

25.0

26.7

ug/L

107

76 - 116

Chloroethane

25.0

25.1

ug/L

101

70 - 131

Chloroform

25.0

27.2

ug/L

109

82 - 119

Chloromethane

25.0

23.6

ug/L

94

49 - 134

2-Chlorotoluene

25.0

26.4

ug/L

106

75 - 115

4-Chlorotoluene

25.0

26.9

ug/L

107

73 - 119

Chlorodibromomethane

25.0

28.5

ug/L

114

77 - 133

1,2-Dichlorobenzene

25.0

26.9

ug/L

108

77 - 117

1,3-Dichlorobenzene

25.0

27.0

ug/L

108

76 - 116

1,4-Dichlorobenzene

25.0

27.1

ug/L

108

76 - 116

1,3-Dichloropropane

25.0

26.3

ug/L

105

77 - 117

1,1-Dichloropropene

25.0

26.7

ug/L

107

83 - 130

1,2-Dibromo-3-Chloropropane

QC Sample Results

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-257216/5

Matrix: Water

Analysis Batch: 257216

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.	
	Added	Result	Qualifier				Limits	
cis-1,3-Dichloropropene	25.0	28.4		ug/L		113	82 - 119	
trans-1,3-Dichloropropene	25.0	26.9		ug/L		107	76 - 122	
Ethylbenzene	25.0	26.3		ug/L		105	77 - 117	
Hexachlorobutadiene	25.0	25.9		ug/L		104	78 - 140	
2-Hexanone	125	123		ug/L		98	63 - 140	
Isopropylbenzene	25.0	26.9		ug/L		108	77 - 130	
4-Isopropyltoluene	25.0	26.7		ug/L		107	80 - 120	
Methylene Chloride	25.0	24.5		ug/L		98	75 - 117	
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		97	66 - 140	
Naphthalene	25.0	24.6		ug/L		98	81 - 121	
N-Propylbenzene	25.0	26.7		ug/L		107	77 - 117	
Styrene	25.0	25.6		ug/L		102	76 - 116	
1,1,1,2-Tetrachloroethane	25.0	27.4		ug/L		110	81 - 121	
1,1,2,2-Tetrachloroethane	25.0	26.5		ug/L		106	70 - 115	
Tetrachloroethene	25.0	26.6		ug/L		106	81 - 130	
Toluene	25.0	25.5		ug/L		102	75 - 120	
1,2,3-Trichlorobenzene	25.0	25.8		ug/L		103	87 - 123	
1,2,4-Trichlorobenzene	25.0	26.5		ug/L		106	78 - 120	
1,1,1-Trichloroethane	25.0	26.7		ug/L		107	74 - 130	
1,1,2-Trichloroethane	25.0	27.4		ug/L		110	80 - 117	
Trichloroethene	25.0	26.3		ug/L		105	80 - 123	
Trichlorofluoromethane	25.0	25.4		ug/L		102	75 - 141	
1,2,3-Trichloropropane	25.0	24.7		ug/L		99	77 - 120	
1,1,2-Trichloro-1,2,2-trifluoroetha	25.0	27.2		ug/L		109	70 - 133	
ne								
1,2,4-Trimethylbenzene	25.0	26.4		ug/L		106	75 - 115	
1,3,5-Trimethylbenzene	25.0	26.3		ug/L		105	77 - 117	
Vinyl acetate	25.0	23.7		ug/L		95	50 - 126	
Vinyl chloride	25.0	26.0		ug/L		104	58 - 138	
m-Xylene & p-Xylene	25.0	26.1		ug/L		104	74 - 119	
o-Xylene	25.0	26.9		ug/L		108	77 - 118	
2,2-Dichloropropane	25.0	26.4		ug/L		106	74 - 156	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	100		72 - 130
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: LCSD 720-257216/6

Matrix: Water

Analysis Batch: 257216

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD		Unit	D	%Rec	%Rec.	
	Added	Result	Qualifier				RPD	Limit
Methyl tert-butyl ether	25.0	25.6		ug/L		102	70 - 130	2 20
Acetone	125	115		ug/L		92	61 - 147	4 30
Benzene	25.0	26.2		ug/L		105	79 - 119	0 20
Dichlorobromomethane	25.0	28.3		ug/L		113	81 - 130	1 20
Bromobenzene	25.0	26.6		ug/L		107	77 - 117	2 20

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-257216/6

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 257216

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Added	Result	Qualifier						
Chlorobromomethane	25.0	26.8		ug/L		107	81 - 122	2	20
Bromoform	25.0	27.5		ug/L		110	75 - 127	1	20
Bromomethane	25.0	24.4		ug/L		98	70 - 132	2	20
2-Butanone (MEK)	125	116		ug/L		92	66 - 133	4	22
n-Butylbenzene	25.0	26.2		ug/L		105	78 - 119	2	20
sec-Butylbenzene	25.0	26.1		ug/L		104	78 - 118	0	20
tert-Butylbenzene	25.0	26.0		ug/L		104	78 - 118	1	20
Carbon disulfide	25.0	27.5		ug/L		110	64 - 127	1	20
Carbon tetrachloride	25.0	26.4		ug/L		106	72 - 142	1	20
Chlorobenzene	25.0	26.6		ug/L		106	76 - 116	1	20
Chloroethane	25.0	24.3		ug/L		97	70 - 131	3	20
Chloroform	25.0	27.5		ug/L		110	82 - 119	1	20
Chloromethane	25.0	23.4		ug/L		94	49 - 134	1	20
2-Chlorotoluene	25.0	26.9		ug/L		108	75 - 115	2	20
4-Chlorotoluene	25.0	27.2		ug/L		109	73 - 119	1	20
Chlorodibromomethane	25.0	29.1		ug/L		116	77 - 133	2	20
1,2-Dichlorobenzene	25.0	27.1		ug/L		108	77 - 117	1	20
1,3-Dichlorobenzene	25.0	27.2		ug/L		109	76 - 116	1	20
1,4-Dichlorobenzene	25.0	27.5		ug/L		110	76 - 116	1	20
1,3-Dichloropropane	25.0	26.8		ug/L		107	77 - 117	2	20
1,1-Dichloropropene	25.0	26.4		ug/L		106	83 - 130	1	20
1,2-Dibromo-3-Chloropropane	25.0	23.1		ug/L		92	74 - 126	1	20
Ethylene Dibromide	25.0	27.3		ug/L		109	80 - 121	3	20
Dibromomethane	25.0	27.0		ug/L		108	79 - 117	3	20
Dichlorodifluoromethane	25.0	23.0		ug/L		92	21 - 150	4	20
1,1-Dichloroethane	25.0	27.0		ug/L		108	77 - 119	0	20
1,2-Dichloroethane	25.0	27.0		ug/L		108	73 - 122	1	20
1,1-Dichloroethene	25.0	27.2		ug/L		109	69 - 119	0	20
cis-1,2-Dichloroethene	25.0	27.3		ug/L		109	77 - 117	1	20
trans-1,2-Dichloroethene	25.0	28.1		ug/L		113	79 - 117	1	20
1,2-Dichloropropane	25.0	27.9		ug/L		112	79 - 119	0	20
cis-1,3-Dichloropropene	25.0	29.0		ug/L		116	82 - 119	2	20
trans-1,3-Dichloropropene	25.0	27.5		ug/L		110	76 - 122	3	20
Ethylbenzene	25.0	26.0		ug/L		104	77 - 117	1	20
Hexachlorobutadiene	25.0	24.6		ug/L		99	78 - 140	5	20
2-Hexanone	125	124		ug/L		99	63 - 140	1	24
Isopropylbenzene	25.0	26.7		ug/L		107	77 - 130	1	20
4-Isopropyltoluene	25.0	26.6		ug/L		107	80 - 120	0	20
Methylene Chloride	25.0	25.0		ug/L		100	75 - 117	2	20
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		98	66 - 140	0	21
Naphthalene	25.0	24.2		ug/L		97	81 - 121	2	20
N-Propylbenzene	25.0	26.8		ug/L		107	77 - 117	0	20
Styrene	25.0	25.5		ug/L		102	76 - 116	0	20
1,1,1,2-Tetrachloroethane	25.0	27.7		ug/L		111	81 - 121	1	20
1,1,2,2-Tetrachloroethane	25.0	27.4		ug/L		110	70 - 115	3	20
Tetrachloroethene	25.0	26.1		ug/L		105	81 - 130	2	20
Toluene	25.0	25.5		ug/L		102	75 - 120	0	20
1,2,3-Trichlorobenzene	25.0	25.1		ug/L		100	87 - 123	3	20

TestAmerica Pleasanton

QC Sample Results

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-257216/6

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 257216

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Added	Result	Qualifier				Limits	RPD		
1,2,4-Trichlorobenzene	25.0	25.8		ug/L		103	78 - 120	3	20	
1,1,1-Trichloroethane	25.0	26.6		ug/L		107	74 - 130	0	20	
1,1,2-Trichloroethane	25.0	28.3		ug/L		113	80 - 117	3	20	
Trichloroethene	25.0	26.4		ug/L		105	80 - 123	0	20	
Trichlorofluoromethane	25.0	25.0		ug/L		100	75 - 141	2	20	
1,2,3-Trichloropropane	25.0	25.8		ug/L		103	77 - 120	4	20	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.5		ug/L		106	70 - 133	3	20	
1,2,4-Trimethylbenzene	25.0	26.3		ug/L		105	75 - 115	0	20	
1,3,5-Trimethylbenzene	25.0	26.4		ug/L		106	77 - 117	1	20	
Vinyl acetate	25.0	23.9		ug/L		96	50 - 126	1	20	
Vinyl chloride	25.0	25.6		ug/L		103	58 - 138	2	20	
m-Xylene & p-Xylene	25.0	25.9		ug/L		103	74 - 119	1	20	
o-Xylene	25.0	26.8		ug/L		107	77 - 118	1	20	
2,2-Dichloropropane	25.0	26.2		ug/L		105	74 - 156	1	20	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		72 - 130
Toluene-d8 (Surr)	98		70 - 130

TestAmerica Pleasanton

QC Association Summary

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

GC/MS VOA

Analysis Batch: 257057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-90321-4	J6038-EB-121418	Total/NA	Water	8260B	
MB 720-257057/4	Method Blank	Total/NA	Water	8260B	
LCS 720-257057/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-257057/6	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 257059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-90321-1	J6038-TRIPBLANK-121418	Total/NA	Water	8260B	
MB 720-257059/4	Method Blank	Total/NA	Water	8260B	
LCS 720-257059/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-257059/6	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 257144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-90321-2	J6038-T-25BD-121418	Total/NA	Water	8260B	
720-90321-3	J6038-T-25BS-121418	Total/NA	Water	8260B	
MB 720-257144/4	Method Blank	Total/NA	Water	8260B	
LCS 720-257144/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-257144/6	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 257216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-90321-4	J6038-EB-121418	Total/NA	Water	8260B	
MB 720-257216/4	Method Blank	Total/NA	Water	8260B	
LCS 720-257216/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-257216/6	Lab Control Sample Dup	Total/NA	Water	8260B	

TestAmerica Pleasanton

Lab Chronicle

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Client Sample ID: J6038-TRIPBLANK-121418

Lab Sample ID: 720-90321-1

Date Collected: 12/14/18 09:00

Matrix: Water

Date Received: 12/14/18 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257059	12/17/18 17:20	AJS	TAL PLS

Client Sample ID: J6038-T-25BD-121418

Lab Sample ID: 720-90321-2

Date Collected: 12/14/18 09:27

Matrix: Water

Date Received: 12/14/18 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	257144	12/18/18 13:42	JD1	TAL PLS

Client Sample ID: J6038-T-25BS-121418

Lab Sample ID: 720-90321-3

Date Collected: 12/14/18 10:35

Matrix: Water

Date Received: 12/14/18 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	257144	12/18/18 13:14	JD1	TAL PLS

Client Sample ID: J6038-EB-121418

Lab Sample ID: 720-90321-4

Date Collected: 12/14/18 10:55

Matrix: Water

Date Received: 12/14/18 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	257216	12/19/18 12:03	A1C	TAL PLS
Total/NA	Analysis	8260B		1	257057	12/17/18 16:58	AJS	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TestAmerica Pleasanton

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.

TestAmerica Job ID: 720-90321-1

Project/Site: TRW Microwave

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
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TestAmerica Pleasanton

Method Summary

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PLS
5030B	Purge and Trap	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TestAmerica Pleasanton

Sample Summary

Client: AECOM Technical Services Inc.

Project/Site: TRW Microwave

TestAmerica Job ID: 720-90321-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-90321-1	J6038-TRIPBLANK-121418	Water	12/14/18 09:00	12/14/18 16:30
720-90321-2	J6038-T-25BD-121418	Water	12/14/18 09:27	12/14/18 16:30
720-90321-3	J6038-T-25BS-121418	Water	12/14/18 10:35	12/14/18 16:30
720-90321-4	J6038-EB-121418	Water	12/14/18 10:55	12/14/18 16:30

TestAmerica Pleasanton

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

12090321

TESTAMERICA Pleasanton Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 187346

Date 12/12/18 Page 1 of 1

Report To		Analysis Request									
Attn:	Holly Holbrook										
Company:	TELON										
Address:	499 W. Town & Country Rd. Orange CA										
Email:	HOLLY.HOLBROOK@TELON.COM										
Bill To:	NIC										
Attn:	Lyman Brininger										
Phone:											
Sample ID:		Date:		Time:		Mail:		Preserv:			
T0038-T-0Blank-12418	12/14/18	01002	W	HCl	X						
T0038-T-05916-12418	12/14/18	01027	W	HCl	X						
T0038-T-2585-12418	12/14/18	01035	W	HCl	X						
T0038-T-0Blank-12418	12/14/18	01055	W	HCl	X						
Volatile Organics/GC/MS (VOCs)											
EPA 8260B											
HVOCS by EPA 8260B											
EPA 8260B G3S BTEx											
EPA 8260B G3S BTCA											
EPA 8260B DCA											
EPA 8260B Ethanol											
5 Oxygenates											
TEPH EPA 8015B Silica Gel											
Diesel Motor Oil Other											
PNA/PAHs by 8270C SIM											
8270C SIM											
Oil and Grease											
Petroleum											
(EPA 6010/J470/J471)											
CAM17 Metals											
Metals: □ 6020 □ 200.8 (ICP-MS)											
Metals: □ 6010B □ 200.7 (ICP-MS)											
Other: □ Lead □ LUTFT □ CRCRA											
Hex Chrom by □ EPA 7199											
Pb □ 9040 □ SM4500											
TSS □ SS □ Alkalinity											
Spec Cond □ SO ₂ □ NO _x □ F											
Ammonium □ NO _x □ SO ₂ □ NO _x □ PO ₄											
TOX □ T199											
Perchlorate by EPA 3140											
Turbidity □ EPA 4104 □ SM5220D											
Number of Containers											

Project Info.		Sample Receipt		1) Relinquished by:		2) Relinquished by:		3) Relinquished by:	
Project Name/ #:	105916	# of Containers:	1115	Signature:	<u>Lyman Brininger</u>	Time:	<u>12/14/18</u>	Signature:	<u>Lyman Brininger</u>
Head Space:		Printed Name:		Printed Name:	<u>TELON</u>	Date:	<u>12/14/18</u>	Printed Name:	<u>TELON</u>
PO#:		Temp:		Signature:	<u>Lyman Brininger</u>	Time:	<u>12/14/18</u>	Signature:	<u>Lyman Brininger</u>
Credit Card	Y	If yes, please call with payment information ASAP		Signature:	<u>Lyman Brininger</u>	Time:	<u>12/14/18</u>	Signature:	<u>Lyman Brininger</u>
Total	10 Day	5 Day	4 Day	3 Day	2 Day	1 Day	Standard	Total	10 Day
Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> EDD <input type="checkbox"/> EDF									
Special Instructions / Comments: <input type="checkbox"/> Global ID _____									
12/21/2018 See Terms and Conditions on reverse									

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 720-90321-1

Login Number: 90321

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	